

PETER BENT BRIGHAM
HOSPITAL --- BOSTON

EIGHTEENTH
ANNUAL REPORT
FOR THE YEAR 1931



1932

FORM OF BEQUEST

I give and bequeath to the Peter Bent Brigham Hospital, a corporation established under the laws of the Commonwealth of Massachusetts, the sum of dollars, the same to be used for the furtherance of its charitable work.



22503068863

PETER BENT BRIGHAM HOSPITAL

JOSEPH B. HOWLAND, M. D.
SUPERINTENDENT
HENRY A. CHRISTIAN, M. D.
PHYSICIAN-IN-CHIEF

721 HUNTINGTON AVENUE
BOSTON, MASS.

ELLIOTT C. CUTLER, M. D.
SURGEON-IN-CHIEF
S. BURT WOLBACH, M. D.
PATHOLOGIST

April 16, 1935.

W. R. LeFame, Librarian
Royal College of Surgeons of England
Lincoln's Inn Fields,
London, W C 2, England.

Dear Sir:-

We are in receipt of yours of April 4th requesting copies
of the 18th and 19th reports of the Peter Bent Brigham Hospital to
complete your files. We are most happy to comply with your request, and
are forwarding them under separate cover.

Yours sincerely,

S. B. Wolbach
Superintendent.

EIGHTEENTH ANNUAL REPORT

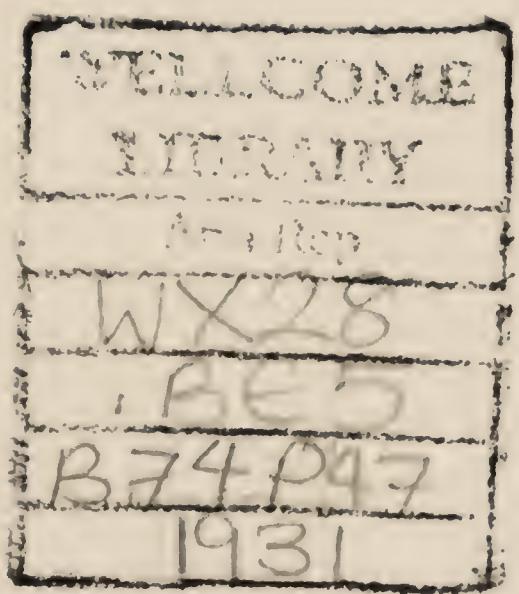
OF THE

PETER BENT BRIGHAM
HOSPITAL

FOR THE YEAR

1931

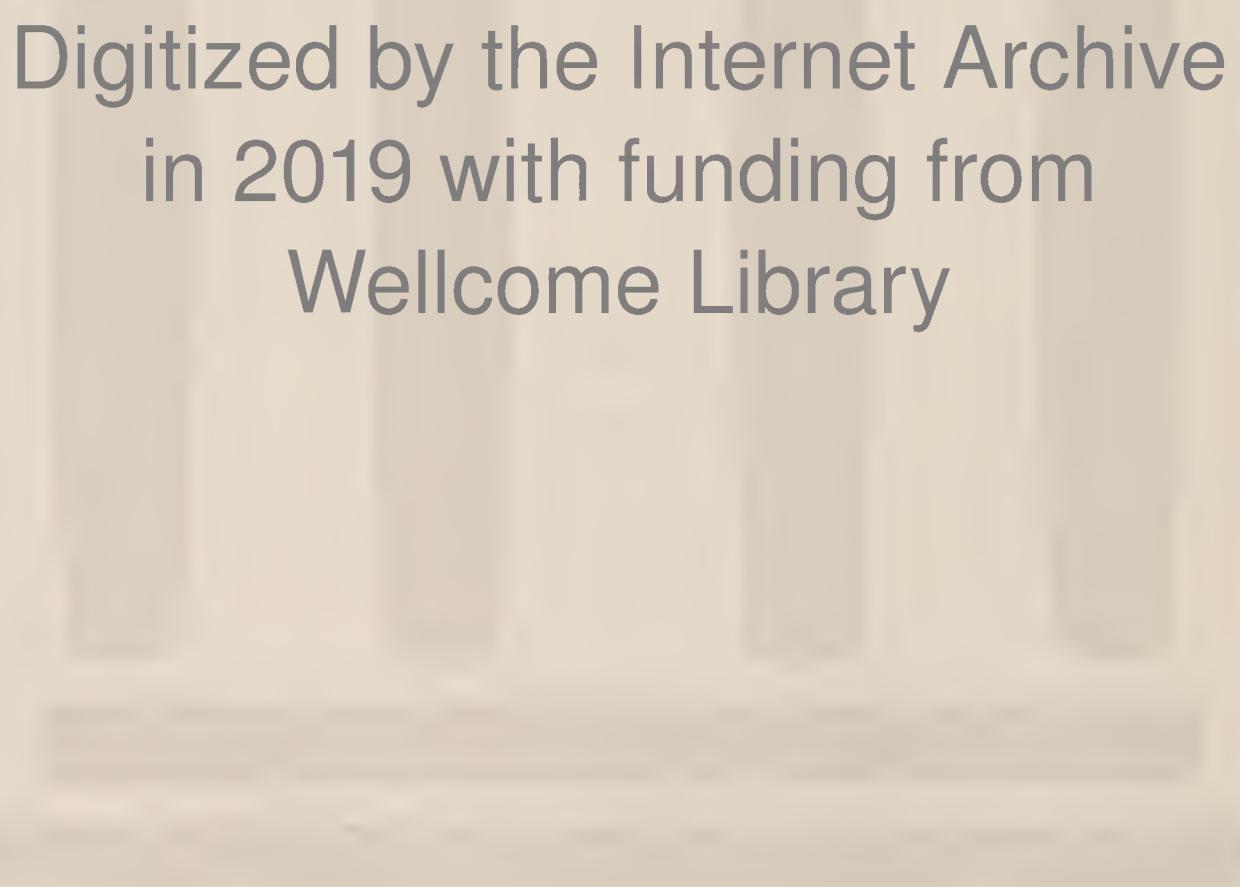
1932





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President's Report

DR. HARVEY CUSHING, Chief Surgeon since the Hospital was first organized in 1912, has reached the retiring age of sixty-three years and retires from the Staff this autumn, to the regret of the Board of Incorporators. We are greatly indebted to him for all he has accomplished at the Peter Bent Brigham Hospital. He has directed an organization which has treated our patients most skillfully and considerately. His teaching and example have drawn to the Hospital many young surgical leaders, who have contributed to the care, comfort and cure of our patients, and who have become in their turn teachers of surgery over this country. The medical world has made it known that Dr. Harvey Cushing is considered one of the great surgeons of all time.

It is the just pride of the Hospital that many men who have received a part of their education and experience in surgery and medicine in this Hospital have been called to positions of importance in other hospitals and in medical schools in this country.

MEDICAL

Hilding Berglund, Asst. Res. Phys., P. B. B. H., 1921-23; Assoc. in Med., *ibid.*, 1923-25; now Prof. of Med., Univ. of Minn., and Chief, Dept. of Med., Univ. Hospitals, Minneapolis.

Francis G. Blake, Med. House Officer, P. B. B. H., 1913-14; Asst. Res. Phys., *ibid.*, 1914-15; Res. Phys., *ibid.*, 1915-16; now Prof. of Med., Yale Univ. School of Med., and Phys.-in-Chief, New Haven Hosp.

Herrmann Blumgart, Med. House Officer, P. B. B. H., 1921-22; now Asso. Prof. of Med., Harv.; Visit. Phys., Beth Israel Hosp., and Director of Med. Research, *ibid.*

PETER BENT BRIGHAM HOSPITAL

- Walter M. Boothby, Supervisor of Anesthesia, P. B. B. H., 1913-16; now Assoc. Prof. of Med., Mayo Foundation, Univ. of Minn., and Head of Sec. of Clin. Metabolism, Mayo Clin., Rochester, Minn.
- Cecil Kent Drinker, Med. House Officer, P. B. B. H., 1914-15; Res. Phys., *ibid.*, 1917; Prof. of Phys., Harv., and Asst. Dean, Harv. School of Public Health.
- Worth Hale, Assoc. in Med., P. B. B. H., 1917-18; Assoc. Prof. of Pharm. and Asst. Dean, Harv. Med. School.
- Paul D. Lamson, Asst. Res. Phys., P. B. B. H., 1913-14; now Prof. of Pharm., Vanderbilt Univ. School of Med.
- George R. Herrmann, Med. House Officer, P. B. B. H., 1918-19; now Prof. of Clin. Med., Univ. of Texas.
- Wilson George Smillie, Med. House Officer, P. B. B. H., 1912-14; Asst. Res. Phys., *ibid.*, 1914; now Prof. of Public Health Administration, Harv. Univ.
- Cyrus C. Sturgis, Med. House Officer, P. B. B. H., 1917-18; Asst. Res. Phys., *ibid.*, 1919-20; Res. Phys., *ibid.*, 1920-22; Assoc. in Med., *ibid.*, 1922-25; Phys., *ibid.*, 1925-27; now Prof. of Int. Med., Univ. of Mich., and Director, Dept. of Int. Med., Univ. Hospitals.
- Joseph T. Wearn, Med. House Officer, P. B. B. H., 1917-18; Asst. Res. Phys., *ibid.*, 1919-21; now Prof. of Med., Western Reserve Univ., and Director of Med., Lakeside Hosp., Cleveland, Ohio.

SURGICAL

- Percival Bailey, Asst. Res. Surg., P. B. B. H., 1919; Assoc. in Surg., *ibid.*, 1920-21; Jr. Assoc. in Surg., *ibid.*, 1922-23; Assoc. in Surg., *ibid.*, 1926-28; now Prof. of Neurol., Univ. of Chicago.
- Clarence E. Bird, Surg. House Officer, P. B. B. H., 1923-24; Asst. Res. Surg., *ibid.*, 1925-26; Res. Surg., *ibid.*, 1926-28; now Prof. of Surg., Univ. of Louisville, and Surg.-in-Chief, Louisville City Hosp.
- Stanley Cobb, Surg. House Officer, P. B. B. H., 1914-16; now Prof. Neuropathol., Harv.
- Elliott C. Cutler, Surg. House Officer, P. B. B. H., 1913-15; Res. Surg., *ibid.*, 1919-21; Assoc. in Surg., *ibid.*, 1921-24; Surg.-in-Chief elect., P. B. B. H., and Moseley Prof. of Surg. elect., Harv.

REPORT OF THE PRESIDENT

- Daniel C. Elkin, Surg. House Officer, P. B. B. H., 1921-22; Asst. Res. Surg., *ibid.*, 1922-23; Res. Surg., *ibid.*, 1923; Prof. of Surg., Emory Univ., and Surg.-in-Chief, Univ. Hospitals.
- John Fulton, Assoc. in Neurol. Surg., 1928; now Sterling Prof. of Phys., Yale.
- Emil Goethsch, Res. Surg., P. B. B. H., 1912-15; now Prof. of Surg. and Surg.-in-Chief, Long Island Coll. Hosp., Brooklyn, N. Y.
- Samuel C. Harvey, Surg. House Officer, P. B. B. H., 1914-15; Asst. Res. Surg., *ibid.*, 1916-17; Prof. of Surg., Yale.
- Emile Holman, Asst. Res. Surg., P. B. B. H., 1923; Res. Surg., *ibid.*, 1923-24; now Prof. of Surg., Stanford Univ. Med. School.
- William S. McCann, Surg. House Officer, P. B. B. H., 1915-16; now Prof. of Med., Univ. of Rochester, Rochester, N. Y.
- Edwin P. Lehman, Surg. House Officer, P. B. B. H., 1914-15; now Prof. of Surg. and Gynecol., Univ. of Va.
- John J. Morton, Surg. House Officer, P. B. B. H., 1913-14; Prof. of Surg., Univ. of Rochester, Rochester, N. Y.

PATHOLOGICAL

- Charles L. Connor, Res. Pathol., P. B. B. H., 1925-26; now Prof. of Pathol., Univ. of Calif. Med. School.
- Ernest W. Goodpasture, Res. Pathol., P. B. B. H., 1915-17; now Prof. of Pathol., Vanderbilt Univ.

This Hospital was founded under the terms of the will of Peter Bent Brigham of Boston "for the care of sick persons in indigent circumstances residing in the County of Suffolk." The Hospital constantly has in mind these provisions and never refuses admission to poor persons, citizens of Suffolk County.

The Hospital acknowledges with gratitude the gifts received, a list of which will be found on the pages immediately following this report.

During the past year the following eminent physicians have served as temporary Chiefs of Service:

PETER BENT BRIGHAM HOSPITAL

Lewellys F. Barker, Emeritus Professor of Medicine, Johns Hopkins University, and Visiting Physician, Johns Hopkins Hospital, served as Physician-in-Chief *pro tem* from April 21 to April 27, 1931.

Campbell P. Howard, Professor of Medicine, McGill University, Montreal, Physician to Montreal General Hospital, Montreal, served as Physician-in-Chief *pro tem* from November 16 to November 21, 1931.

We are grateful to them for their valuable services, their teaching and inspiration.

We thank the Ladies' Social Service Committee for all the good work which they have done for the Hospital during the past years.

We regret to record the resignation of Mrs. Thelma Tubbs Currier, who came here as a student dietitian August 1, 1923, became assistant dietitian in 1924, and in May, 1925, was appointed Dietitian. She has been a highly efficient officer and did much to advance our dietary department.

We express our appreciation and gratitude for the faithful service rendered by the Staff and employees during the past year.

CHARLES P. CURTIS,
President.

DECEMBER 31, 1931.

Gifts to the Hospital During the Year 1931

Mr. Joseph Lincoln.....	\$ 10.00
Mrs. Edith Spurling.....	3.00
Mr. Peter L. Murphy.....	15.00
Miss Mary E. Dorroh.....	1.00
Mary Mullins.....	5.00
Boston Firemen's Relief Fund for a free bed for year 1931.....	200.00
Mr. Charles P. Curtis for a free bed for year 1931.....	100.00
Mabelle J. Butler through Dr. Murphy.....	100.00
Legacy under will of Ethel M. Byrne.....	1,848.00
Estate of Henry S. Howe for a free bed in memory of Henry Saltonstall Howe.....	5,000.00
Mrs. Almena S. Gray gift to the Philip H. Gray Fund for the furtherance of Neuro-Surgery	5,000.00
Committee of the Permanent Charity Fund, Inc. to be used for the general purposes of the Social Service Dept.....	2,025.00
Mr. and Mrs. Arthur Weed gift through Dr. Fitz to the Diabetic Research Fund.....	800.00
Anonymous gift through Dr. Fitz to the Diabetic Research Fund	50.00
Anonymous gift through Dr. J. P. O'Hare to the Fund for Research in Renal and Vascular Diseases.....	1,000.00
Anonymous gift to the Surgeon-in-Chief Fund.....	508.10
Mr. William Amory gift to the Fiction Library Fund.....	25.00

GIFTS TO SOCIAL SERVICE FUND

Mrs. Henry Greenough.\$ 10.00	Mrs. Amory A. Lawrence \$ 25.00
Mrs. N. Penrose Hallowell	Mrs. Everett Morss.... 5.00
50.00	Miss Amelia Peabody... 15.00
Mrs. Henry B. Cabot, Jr.	Mrs. William Amory... 10.00
15.00	Mrs. John L. Grandin... 25.00
Mrs. Arthur B. Denny..	Mrs. Hugh D. Scott.... 5.00
25.00	Mrs. George E. Warren 25.00
Mrs. Walter C. Baylies	Mrs. R. B. Williams.... 50.00
25.00	Mrs. Edw. W. Grew.... 5.00
Mrs. Philip Dexter.....	Mrs. F. W. Sargent.... 1,000.00
10.00	Mr. Theodore Lyman... 100.00
Mrs. Charles L. Slattery	Mrs. Philip Stockton... 10.00
5.00	Miss Harriet S. Curtis.. 10.00
Miss Marie Gookin.....	Mrs. O. H. Merrick.... 25.00
5.00	Mrs. Richard T. Fisher 25.00
Mrs. Percival Lombard	Mr. George E. Cabot... 25.00
15.00	
Mrs. T. Mott Shaw.....	
5.00	
Mrs. William Whitman,	
Jr.	
10.00	
Mrs. Heman M. Burr...	
15.00	
Mr. and Mrs. F. Doug-	
lass Cochrane.....	
100.00	

PETER BENT BRIGHAM HOSPITAL

Mrs. Oliver Ames.....\$	15.00	Mrs. John L. Thorndike.\$	10.00	
Mrs. W. T. Aldrich....	10.00	Mrs. A. Farwell Bemis	25.00	
Mrs. William Amory...	10.00	Miss Sarah F. Bremer..	25.00	
Mrs. David Cheever....	60.00	Mr. T. Hassall Brown..	5.00	
Mr. Charles P. Curtis..	50.00	Mrs. Harvey Cushing..	100.00	
Mrs. Charles P. Curtis..	50.00	Mrs. John W. Farley...	5.00	
Mrs. R. W. Emmons....	25.00	Mrs. Reginald Fitz.....	20.00	
Mr. Augustus Hemenway	25.00	Mrs. S. E. Guild.....	5.00	
Mrs. Edw. J. Holmes...	5.00	Mrs. Francis C. Hall...	10.00	
Mrs. Eliot Hubbard....	10.00	Miss Louisa Hunnewell	20.00	
Dr. Harvey Cushing....	50.00	Mrs. Henry A. Morss...	25.00	
Mrs. George P. Denny..	25.00	Mr. L. H. H. Johnson..	50.00	
Miss Hersey's School Association	50.00	Mrs. J. S. Ames.....	10.00	
Mrs. Moses Williams...	5.00	Mrs. James Jackson....	25.00	
Mrs. W. D. Sohier.....	5.00	Mrs. Henry B. Chapin..	10.00	
Mrs. Henry Lyman.....	15.00	Mrs. John P. Reynolds	25.00	
Mrs. Pierpont L. Stack- pole	200.00	Mrs. R. H. Stevenson..	5.00	
Mrs. M. G. Haughton...	25.00	Mrs. R. T. Paine, 2nd..	25.00	
Mrs. Harry L. Bailey...	20.00	Mrs. William Emerson	50.00	
Miss Ida G. Beal.....	5.00	Mrs. H. Daland Chandler	5.00	
Miss Mary Curtis.....	5.00	Mrs. Philip S. Dalton...	5.00	
Mr. William P. Homans	5.00	Miss Jane B. Hunne- well	10.00	
Mr. Francis W. Hunne- well	50.00	Mr. Henry J. Sargent..	200.00	
Mrs. Ellerton James....	5.00	Mrs. W. Rodman Pea- body	10.00	
Mrs. Frederic Winthrop	20.00	Mrs. Henry G. Brooks..	5.00	
Mrs. Malcolm Donald...	15.00	Miss Ellen T. Bullard..	10.00	
Mrs. Walter Hunnewell	25.00	Mrs. J. B. Howland....	10.00	
Mrs. Robert G. Shaw...	15.00	Mrs. Horace Binney....	5.00	
Mrs. J. A. L. Blake....	15.00	Mrs. Donald McKay Frost	50.00	
Mrs. Robert Saltonstall	25.00	Miss Edith Fitz.....	10.00	
Mrs. J. Harleston Parker	10.00	Miss Helen Cheever....	15.00	
Mrs. Francis W. Peabody	10.00	Mrs. Richard Sears....	10.00	
Mrs. W. T. Councilman	5.00	Mrs. Hilbert F. Day...	3.00	
Mrs. S. B. Wolbach....	100.00	Mrs. Edward A. Taft...	10.00	
Mr. Arnold W. Hunne- well	25.00	Mrs. Neal Rantoul.....	25.00	
Mrs. J. L. Bremer.....	25.00	Mr. Gorham G. Peters..	50.00	
Mrs. Walter Hunnewell	25.00	Miss Lola M. B. Green	5.00	
Mrs. R. W. Lovett.....	25.00	Mrs. Henry Wolcott....	5.00	
Mr. A. Lawrence Lowell	25.00	Mrs. George B. Blake...	25.00	
Mrs. George H. Lyman..	25.00	Mrs. Shepard Brooks...	100.00	
Mrs. Richard C. Paine..	10.00	Mrs. H. G. Byng.....	10.00	
Mrs. Richard C. Curtis	50.00	Mrs. Louis A. Frothing- ham	25.00	
Mrs. Francis B. Crown- inshield	25.00	Mrs. Gilbert Horrax....	10.00	
Mrs. Roger B. Merriman	10.00	Miss Mary Hunnewell..	10.00	
	10.00	Mrs. John C. Lee.....	10.00	

GIFTS TO THE HOSPITAL

Miss Evelyn R. Sturgis.	\$ 25.00	Miss Katharine A.	
Mr. William Amory....	500.00	Homans	\$ 15.00
Mrs. Harvey Cushing...	100.00	Mrs. Henry S. Grew...	10.00
Miss Rose L. Dexter...	25.00	Mrs. Joseph Warren....	25.00
Mrs. John L. Grandin...	25.00	Mr. Ronald T. Lyman..	25.00
Dr. and Mrs. John Homans	10.00	Mrs. Robert H. Gardiner	10.00
Net proceeds from sale tickets for moving pictures.....			905.50
Proceeds Social Service Fair.....			738.45
Proceeds Hunnewell Garden Party.....			215.00

MONEY RAISED FOR PATIENTS IN SOCIAL SERVICE DEPARTMENT, 1931

"Divers Good Causes," <i>Boston Transcript</i>	\$ 307.00
Benton Fund.....	138.50
Lotta Crabtree Estate.....	400.00
Lend A Hand Society.....	105.00
Weber Charities, Inc.....	217.50
Benevolent Individuals	222.00
Eckley Fund.....	70.00
Invalid Aid Society.....	11.00
Jillson, Mrs. F. C.....	25.00
John Clarke Fund.....	42.00
Home for Aged Men--Contribution for liver extract for an Outside Beneficiary given through Miss Christine McLeod	125.00
Miscellaneous	122.10
<hr/>	
Total	\$1,785.10

CONTRIBUTIONS TO ESTABLISH THE FRANCIS WELD PEABODY LOAN FUND

Dr. Henry A. Christian.....	\$288.29
Dr. Elliott Cutler.....	100.00
Dr. Ramsay Spillman.....	10.00
Dr. H. H. Brittingham.....	50.00
Dr. Maurice Fremont-Smith.....	5.00
Dr. Herrmann Blumgart.....	25.00
Dr. John A. P. Millet.....	10.00
Dr. F. T. H'Doubler.....	50.00
Dr. C. J. Marinus.....	10.00
Dr. Guy W. Wells.....	25.00
Dr. S. F. MacMillan.....	15.00
Dr. Horace Grey.....	10.00
Dr. Daniel C. Elkin.....	10.00
Dr. H. S. Forbes.....	5.00
Dr. Samuel C. Harvey.....	25.00

PETER BENT BRIGHAM HOSPITAL

Dr. Hilmar O. Koefod.....	\$ 50.00
Dr. Wilder G. Penfield.....	10.00
Dr. W. S. Ladd.....	10.00
Dr. J. A. Wentworth.....	5.00
Dr. J. A. Evans.....	10.00
Dr. F. D. Adams.....	10.00
Dr. Lawrence Reynolds.....	25.00
Dr. Joseph T. Wearn.....	50.00
Dr. M. J. Schlesinger.....	10.00
Dr. Emil A. Falk.....	10.00
Dr. Ghent Graves.....	10.00
Dr. John Fallon.....	15.00
Dr. R. Stecher.....	200.00
Dr. F. B. Berry.....	10.00
Dr. W. B. Stevens.....	10.00
Dr. D. W. Carter, Jr.....	25.00
Dr. Harvey Cushing.....	250.00
Dr. Hugh William Cairns.....	10.00

Free Bed Fund

Alexander Cochrane Free Bed	\$10,000.00
Walter Hunnewell Free Bed	10,000.00
Miss Aimee Lamb (In memory of Mrs. Winthrop Sargent)	5,000.00
Carrie M. Hall Free Bed	6,000.00
(Alumnae Association of the Peter Bent Brigham Hospital School of Nursing)	
Henry Saltonstall Howe Free Bed....	5,000.00
Theodore Lyman Free Bed	1,000.00 for ten years
Boston Firemen's Relief Association Free Bed	200.00 for one year
Charles P. Curtis Free Bed	100.00 for one year
In Memory of Margaret P. Russell	100.00 for one year
Mrs. Richard C. Curtis Free Bed	100.00 for one year
Mrs. F. S. Parker Free Bed	100.00 for one year

Report of the Treasurer

A STATEMENT of receipts of income from investments and of payments therefrom out of the office of the Treasurer for the year ending December 31, 1931 is as follows:

INCOME

Real Estate Receipts:

Rent	\$179,069.77
Taxes paid by tenants	13,648.31
Insurance paid by tenants	283.38
Portland St. Power Plant net receipts	38.13
	—————
	\$193,039.59

Interest on Investments:

On bonds	\$ 58,089.50
On mortgages	13,176.00
	—————
	\$ 71,265.50
Dividends	45,373.40
	—————
	116,638.90
Bank interest	560.82
Amount received from Trustees u/w Peter B. Brigham as income to date of closing Trust	6,293.59
	—————
Total income	\$316,532.90

EXPENDITURES

Taxes	\$ 76,532.40
Building repairs, etc.	10,472.44
Insurance	7,289.43
Salaries	7,800.00
Legal expenses	575.00
Audit	800.00
Safe deposit box rent	70.00
Moody's investor's service	1,200.00
Account books, etc.	22.40
	—————
Amount carried forward	\$104,761.67

REPORT OF THE TREASURER

<i>Amount brought forward</i>	\$104,761.67
Bond premiums amortized	525.36
	<hr/>
	105,287.03
	<hr/>
	\$211,245.87
Transferred to Portland St. Power Plant Depreciation Account . . . \$	38.13
Transfer of income applicable to the following funds for year 1931:	
Surgeon-in-chief Fund	1,668.08
John P. Reynolds Scholar- ship Fund	125.00
	<hr/>
	1,831.21
	<hr/>
Net investment income available for Hospital operating expenses	\$209,414.66
Net payments for Hospital operating expenses as shown by the Super- intendent's statement appended . . . \$234,874.06	
Less increase in Superintendent's sup- plies	831.34
	<hr/>
	234,042.72
	<hr/>
Deficit for year 1931 charged to General Fund . . .	<u>\$ 24,628.06</u>

BALANCE SHEET, DECEMBER 31, 1931

A S S E T S

Land and buildings occupied for Hos- pital including furniture and fix- tures	\$ 2,277,718.55
Mortgages	434,000.00
<i>Land and buildings:</i>	
166/210 Portland Street	\$786,144.74
38/54 Scollay Square	492,943.41
108/14 Lincoln Street	153,368.45
91/5 Portland Street	75,957.25
1/3 Bowdoin Street	54,452.51
	<hr/>
<i>Amount carried forward</i>	<i>\$1,562,866.36</i>

PETER BENT BRIGHAM HOSPITAL

Amount brought forward \$1,562,866.36

148/50	Hanover Street	60,787.78
1/7	Sudbury Street	60,151.83
4/14	Cambridge Street	55,388.53
94/8	Arch Street and 13/17 Otis Street	166,211.42
Land corner Albany and Dover Streets		106,485.73
77	East Dedham Street	3,108.89
35	Newcomb Street	3,383.08
9	Andrews Street	1,837.35
13	Andrews Street	1,837.35
83	Village Street	3,399.04
28	Genesee Street	7,914.40
35	Wall Street	9,582.84
83	Brighton Street	10,097.05
		————— \$2,053,051.65

Shares:

180 shares Atchison, Topeka & St. Fe R. R. Co. common	\$ 39,474.00
1000 shares Boston & Maine R. R. Co. pfd A stamped..	129,432.68
500 shares Boston & Maine R. R. Co. pfd A unstamped	36,178.76
620 shares Boston & Maine R. R. Co. prior pref. pfd ..	62,422.99
100 shares Boston & Albany R. R. Co.	25,800.00
524 shares Vermont & Massachu- setts R. R. Co.	91,700.00
450 shares Old Colony R. R. Co.	93,150.00
183 shares Nashua & Acton & Bos- ton R. R. Co.	183.00
300 shares State Street Exchange	25,960.00
600 shares Boston Real Estate Trust	69,937.25
150 shares Hotel Trust (Touraine)	15,900.00
150 shares South Terminal Trust	14,175.00

Amount carried forward \$604,313.68

REPORT OF THE TREASURER

<i>Amount brought forward</i>	\$604,313.68
1000 shares Berkeley Hotel Trust	65,000.00
400 shares Public Service Co. of N. J.	24,570.00
100 shares Chicago, Milwaukee St. Paul & Pacific R. R. Co. pfd	15,162.70
600 shares Pennsylvania R. R. Co.	40,773.88
1500 shares New York, New Haven & Hartford R. R. Co. common	28,500.00
375 shares New York, New Haven & Hartford R. R. Co. pfd	37,500.00
186 shares Pennroad Corporation	2,883.00
30 shares Albany Trust	2,265.00
18 shares City Associates par value \$500 per share	5,875.00
50 shares Tremont Building Trust	3,240.00
	\$ 830,083.26

Bonds:

\$100,000 Edison Electric Illuminating Co. 5% coupon notes due 1933	\$100,000.00
170,000 American Telephone & Telegraph Co. 5% bonds due 1965	168,187.50
25,000 Long Island R. R. Co. Gold Debenture 5% bonds due 1934	24,000.00
100,000 Chicago, Burlington & Quincy R. R. Co. Ill. Division 3½% bonds due 1949	89,077.50
20,000 Washington Water Power Co. 5% bonds due 1939	20,130.16
	<i>Amount carried forward</i>
	\$401,395.16

PETER BENT BRIGHAM HOSPITAL

<i>Amount brought forward</i>	\$401,395.16
55,000 Interborough Rapid Transit 5% bonds due 1966	53,500.00
50,000 Burlington Cedar Rapids & Northern R. R. Co. 5% bonds due 1934	50,775.13
25,000 New York Central & Hudson River R. R. Co. first mortgage 3½% bonds due 1997	21,875.00
50,000 Cleveland Lorain & Wheeling R. R. Co. 5% bonds due 1933	50,495.81
25,000 New York Central & Hudson River R. R. Co. Deb. 4% bonds due 1934	23,937.50
25,000 Northern Pacific Ry. Co. Prior Lien 4% bonds due 1997	24,781.25
50,000 Eastern Massachusetts Street Ry. Co. series A 4½% bonds due 1948	41,450.00
2,500 Eastern Massachusetts Street Ry. Co. series D 6% bonds due 1948	
5,000 Eastern Massachusetts Street Ry. Co. series B 5% bonds due 1948	2,585.00
25,000 Quincy Market Realty Co. 5% bonds due 1964	25,000.00
28,000 General Electric Company 3½% bonds due 1942	23,170.00
56,800 Pere Marquette Ry. Co. first mortgage 5% bonds due 1956	49,420.00
<i>Amount carried forward</i>	\$768,384.85

REPORT OF THE TREASURER

Amount brought forward \$768,384.85

3,000 Pennsylvania R. R. Co.			
4% bonds due 1948	2,880.00		
50,000 Atchison, Topeka & St. Fe			
R. R. Co. Trans Con-			
tinental Short Line			
4% bonds due 1958	47,500.00		
20,000 Illinois Central R. R. Co.			
Ref'd mortgage 4%			
bonds due 1955 . . .	17,700.00		
50,000 Illinois Steel Company			
4½% bonds due 1940	47,375.00		
25,000 Cedar Rapids Mfg. &			
Power Co. first mort-			
gage Sinking Fund			
5% bonds due 1953	24,250.00		
15,000 Montreal Light & Power			
Co. first mortgage			
4½% bonds due 1932	13,875.00		
15,000 Baltimore & Ohio R. R.			
Co. South Western			
Div. 5% bonds due			
1950 . . . ,	14,887.50		
2,400 Chicago, Milwaukee, St.			
Paul & Pacific R. R.			
Co. 5% bonds due			
1975	2,400.00		
50,000 City of Toronto, Canada			
General Consolidated			
Loan Debt.			
5% bonds due 1941			
20,000 City of Toronto, Canada			
General Consolidated			
Loan Debt.			
5% bonds due 1943	99,125.00		
30,000 City of Toronto, Canada			
General Consolidated			
Loan Debt.			
5% bonds due 1944			

Amount carried forward \$1,038,377.35

PETER BENT BRIGHAM HOSPITAL

Amount brought forward \$1,038,377.35

50,000 Canadian Pacific Railways Equipt. Trust 5% bonds due 1944	49,625.00
25,000 Indianapolis Gas Co. first mortgage 5% bonds due 1952	25,119.46
25,000 Erie R. R. Co. refunding & imp. mortgage 5% bonds due 1975	23,875.00
50,000 Crucible Steel Co. of Am- erica 5% gold debt. bonds due 1940	49,750.00
5,000 Pennsylvania R. R. Co. gen'l mortgage 4¼% bonds series D due 1981	4,800.00
25,000 Pennsylvania Power & Light first mortgage 4½% bonds due 1981	24,062.50
20,000 Central of Georgia Ry. Co. Chattanooga Div. 4% bonds due 1951	17,500.00
25,000 Southern California Gas Co. first mortgage & refunding 4½% bonds due 1961	24,062.50
5,000 Atlantic Gulf & West In- dies Steamship Co. Coll. Trust 5% bonds due 1959	3,500.00
10,000 Kentucky Traction & Terminal Co. first & ref'd S. F. 5% bonds due 1951	8,650.00
5,000 United Post Office Cor- poration first mort- gage S. F. 5% bonds due 1935	5,000.00

Amount carried forward \$1,274,321.81

REPORT OF THE TREASURER

<i>Amount brought forward</i>	.....\$1,274,321.81
5,000 Boston & Maine R. R. Co.	
mortgage series H H	
5% bonds due 1932	4,875.00
5,000 Associated Gas & Electric	
Co. deb. 5% bonds	
due 1968	4,900.00
5,000 New England Power Association d e b. 5½%	
bond due 1954	4,805.00
<i>Cash:</i>	----- 1,288,901.81
Operating Expense	
Fund	\$ 20,000.00
In banks	17,275.95
	----- 37,275.95
Superintendent's inventories	41,782.89
Accounts receivable	20.00

Total Assets	<u>\$6,962,834.11</u>

BALANCE SHEET, DECEMBER 31, 1931

LIABILITIES AND FUNDS

Rent Deposits, etc.	\$ 2,100.00
Reserves :	
For Portland Street Power Plant	
depreciation	\$ 5,981.30
For depreciation of investment Real	
Estate	111,649.00
	----- 117,630.30

Unexpended Income:

Surgeon-in-Chief Fund—Income..	\$ 3,668.08
John P. Reynolds Scholarship Fund	
Income	201.85
	----- 3,869.93

Special Funds:

Diabetic Research Fund	\$ 675.85
Philip H. Gray Fund for the fur-	
therance of Neuro-Surgery	23,164.45

Amount carried forward\$ 23,840.30

PETER BENT BRIGHAM HOSPITAL

<i>Amount brought forward</i>	\$ 23,840.30
John P. Reynolds Memorial Fund	1,000.00
Hemenway Squash Court	11,050.00
Surgical Dressing Fund—donation from the New England Surgical Dressing Committee	10,000.00
Surgeon-in-Chief Fund	33,573.44
John P. Reynolds Scholarship Fund	2,500.00
Radium Fund	3,000.00
Alexander Cochran Free Bed Fund	10,000.00
Theodore Lyman Free Bed Fund	1,000.00
Aimee Lamb Free Bed Fund in memory of Mrs. Winthrop Sar- gent	5,000.00
Walter Hunnewell Free Bed Fund	10,000.00
Carrie M. Hall Fund	6,000.00
Social Service Fund	34.23
Fund for Research in Renal and Vascular diseases	3,277.87
Social Service Special Gift Fund .	556.54
Fiction Library Fund	2.29
Free Bed in memory of Henry Sal- tonstall Howe	5,000.00
Francis Weld Peabody Loan Fund	1,358.29
	127,192.96
Peter Bent Brigham Hospital General Fund	6,712,040.92
Total Liabilities and Funds	\$ 6,962,834.11

EDMUND D. CODMAN,
Treasurer.

Report of the Superintendent

THE eighteenth annual report of the Superintendent is submitted herewith.

From the standpoint of a hospital executive, a favorable hospital report would be one showing large numbers of patients admitted to all departments with good collections of normal hospital charges and good returns from the invested funds. On the other hand, a public health officer, reporting for the year's work, would consider he had submitted a good report if he was able to show that the general health of the people had been better than usual.

Nineteen thirty-one has been a bad hospital year because there were fewer admissions, poorer collections from the patients and smaller returns from the endowment fund. From the standpoint of public health with the country going through the second year of a profound financial depression, health conditions have been very favorable. The Metropolitan Life Insurance Company, in its statistical bulletin of January, 1932, says, "The 1931 health record of the millions of insured wage-earners in the United States and Canada, and their dependents, was the most remarkable of all time. It is true that their death rate was not at the absolute minimum. But, in spite of the most severe industrial depression of a generation, which lasted throughout the year, and in the face of a widespread epidemic of influenza during the first quarter, the 1931 death rate exceeded the previous minimum by only one per cent."

PETER BENT BRIGHAM HOSPITAL

Reports from all sources indicate that the year was unusually healthy. Some have attempted to lay it to conditions arising out of unemployment, and it is generally conceded that the relief agencies have seen to it that children and invalids have been well nourished and their health unaffected by economic conditions. As an indication of the healthfulness of the year, the record of sickness among students in our School of Nursing is of interest. Never in the history of the School has there been so little time lost by the students on account of illness.

There were admitted to the wards 4,245 patients as compared with 4,341 in 1930. Patient's days treatment were 72,256 as compared with 77,852 the previous year. The average occupancy of all hospital beds was 80+% as compared with 86.5% in 1930. While running the hospital was less costly than the previous year, this difference was not sufficient to lower the daily per capita cost, owing to the lessened bed occupancy. This cost, based on the total expenditure in all departments of the hospital (excepting the amount paid graduate special nurses employed at the expense of the patient for special duty) was \$8.00 per day as compared with \$7.68 in 1930. Deducting the cost of operating the private ward and the out-door department, the per capita cost was \$6.63+; it was \$6.45 last year. The per capita cost of provisions for all persons supported was \$.43+ as compared with \$.49— in 1930. In the Out-Door Department, the number of new patients treated was 7,595 against 7,784 in 1930. The total number of visits in that department was 71,188, as compared with 76,523 the previous year. The loss in visits to the Out-Door Department during the year (about 5,000) led me to wonder to what this was due, as I feel the number of

REPORT OF THE SUPERINTENDENT

return visits may be considered somewhat an index as to the quality of the work done in the Out-Door Department, or at least, satisfaction given to the patient. The Social Service Department received a small grant to make a study. One thousand records were selected at random to ascertain how many patients had failed to keep their return appointments. Of this number, it was found that 80%, or 800, had kept all appointments or had been discharged by the doctor. Twenty percent or 200 patients had failed to keep appointments.

Of these 200 patients, 81% did not return for such reasons as the following:

- 27% moved, left no address.
- 25% felt their condition had improved.
- 19% could not be found.
- 15% wrong address given, not traced.
- 5% financial distress.

14% did not return for the following reasons:

- 6% felt they got no results.
- 5% because of some misunderstanding.
- 3% dissatisfied with treatment.

Of the remaining 5%, 2½% have died, 2% were receiving care elsewhere, ½ of 1% have been recommended for operation for which they were not prepared.

The Social Service Department also made an interesting study of the economic status of 239 families known to us through the cardiac clinic. Of the 239 families studied, the index used was whether this family was living within or below the standard budget prepared by the Nutrition Service of the Community Health Association. It was found that 80% of the families were living below the standards of this budget. Of these, 14 families of three were receiving \$10 per week for

PETER BENT BRIGHAM HOSPITAL

part time work; 11 families had no regular income and were supported by relatives; 9 families received \$8 per week for part time work; 8 families had no regular income and had small savings or were supported by relatives.

The average daily cost per patient in the out-door department increased a little over a cent, from .71— to .72+. Further statistical information will be found in Table III on page 35.

We regret to record the death of one of our Trustees and a medical house officer during the year. Mr. Henry S. Howe, a charter member of the Corporation, died March 2. Mr. Howe had had a long experience as hospital trustee, both at the Massachusetts General Hospital and at this hospital since its beginning, and thus was a wise counsellor in hospital affairs. Dr. Horace M. Boyden died on February 3, after an acute illness, a streptococcic sore throat. From the start, it was seen that he was seriously ill, and the end came after only four days. His father, a physician in Portland, Oregon, flew from there to Boston in mail planes and regular passenger transports, arriving a day before his son's death.

We record with regret the resignation of our dietitian, Mrs. Thelma Tubbs Currier. Mrs. Currier's first connection with the hospital was as student dietitian; later, she became an assistant dietitian, and on May 21, 1925, was appointed as dietitian. By her ability and zeal, she advanced the work of her department, and it was with great regret on the part of all her associates here that her resignation was accepted on August 1, 1931. She was succeeded by Miss Gertrude McDonald. Miss McDonald also received her first practical dietetic work as a student here and came to us from the Beth Israel

REPORT OF THE SUPERINTENDENT

Hospital where she had served a year as assistant dietitian.

The total special diet days for the year were 13,994, as compared with 11,920 last year. The outstanding special diets supplied were: Diabetic, 2,937; High Caloric, 2,564; Standard Nephritic, 977; Low Protein, 510; Sippy, 1,904; and Special Anemia Diets, 730. The selective menus adopted last year in the private ward have been successfully continued this year. Re-organization of the main kitchen, eliminating the matron and placing a chef in charge under a dietitian, which was started last year, has made for better food service. Twelve student dietitians have completed the six months course during the past year. The affiliation with the Boston Dispensary, which was a repetition of the students out-patient experience here, was discontinued. Work in the metabolic research laboratory at the Huntington Memorial Hospital, under Dr. Joseph C. Aub was substituted. This experience has proved beneficial.

During the year, 6,500 books were circulated from the patients' fiction library. One hundred and forty-eight books were given to the Library. Of these, 85 came from the Brookline Public Library; Mr. C. P. Curtis, President of the Corporation, 20; Mrs. Larz Anderson, 15; Dr. William Walker, 12; Miss Eleanor J. Chase, 9. Magazines and games also have been presented to the Library. Mr. William Amory gave \$25 to purchase books. One hundred and eighty-one foreign books have been loaned us by the Division of Public Libraries at the State House.

No physical changes in the hospital were made during the year as economy here, as almost everywhere, has been the main thought.

PETER BENT BRIGHAM HOSPITAL

The co-operative spirit among the staff and workers of the hospital has been all one could ask. I wish to thank the Corporation for their continued support.

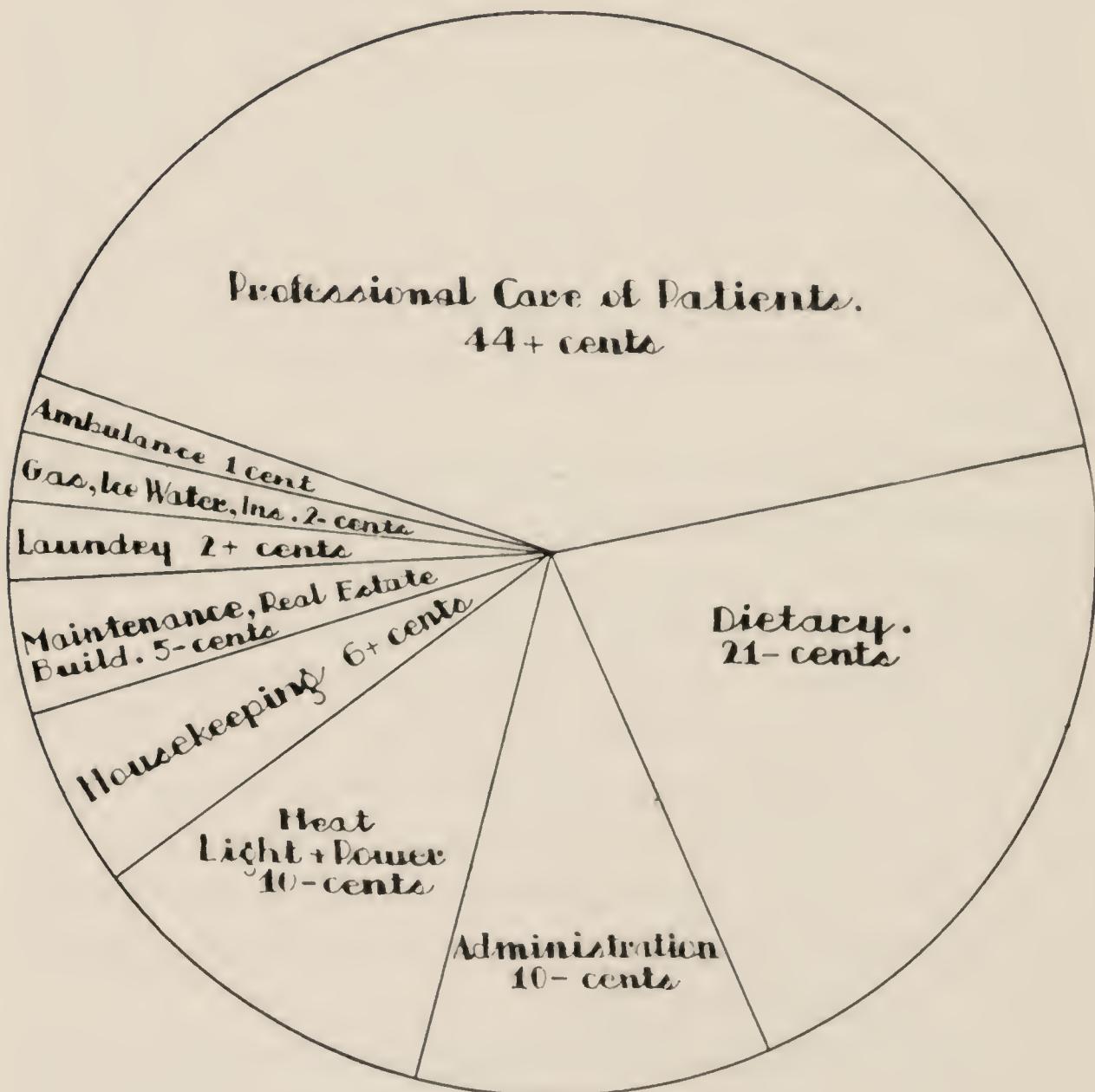
Respectfully submitted,

JOSEPH B. HOWLAND,

Superintendent.

DECEMBER 31, 1931.

DISTRIBUTION of the DOLLAR for 1931 .



REPORT OF THE SUPERINTENDENT

Table I
Table of Medical and Surgical Diseases in
Terms of International Classification
JANUARY 1, 1931 TO JANUARY 1, 1932

DISEASES	MEDICAL		SURGICAL		O. D. D.
	Disch.	Dead	Disch.	Dead	
I. EPIDEMIC, ENDEMIC, AND INFECTIOUS DISEASES					
1 Typhoid and paratyphoid fever	6	1	..	..	..
4 Malta fever	1	..	..	..	..
5 Malaria	1	..	..	..	..
8 Scarlet fever	2	..	..	..	..
11 Influenza	12	..	1	..	3
13 Mumps	1	..	..	..	2
21 Erysipelas	10	..	3	..	2
22 Acute anterior poliomyelitis	2	..	..	..	..
23 Lethargic encephalitis	2	..	..	..	..
24 Meningococcus meningitis .....	..	..	1	..	..
25 Other epidemic and endemic diseases ..	47	..	26	2	249
30 Mycoses	1	..	1	1	3
31 Tuberculosis of the respiratory system	61	4	21	..	94
32 Tuberculosis of the meninges	3	1	2	..	1
33 Tuberculosis of intestines and peritoneum	5	..	8	..	3
34 Tuberculosis of the vertebral column	..	..	3	..	3
35 Tuberculosis of the joints .....	..	..	2	..	..
36 Tuberculosis of other organs	12	..	15	..	15
37 Disseminated tuberculosis	4	2	..	..	..
38 Syphilis (includes tabes dorsalis and general paralysis of the insane)	197	4	39	..	184
40 Gonococcus infection	8	..	12	1	78
41 Purulent infection, septicemia	4	1	4	..	..
II. GENERAL DISEASES NOT INCLUDED ABOVE					
43 Cancer and other malignant tumors of the buccal cavity .....	..	..	4	..	8

PETER BENT BRIGHAM HOSPITAL

DISEASES	MEDICAL		SURGICAL		O. D. P.
	Disch.	Dead	Disch.	Dead	
44 Cancer and other malignant tumors of the stomach and liver	14	2	28	8	21
45 Cancer and other malignant tumors of the peritoneum, intestines, and rectum	6	2	33	3	12
46 Cancer and other malignant tumors of the female genital organs	1	..	15	..	29
47 Cancer and other malignant tumors of the breast	2	1	17	1	22
48 Cancer and other malignant tumors of the skin .....	..	..	2	..	9
49 Cancer and other malignant tumors of other or unspecified organs	33	5	49	4	29
Malignant tumors of nervous system (verified) (includes gliomas) (cf. also 59 and 84) .....	..	..	94	14	..
50 Benign tumors and tumors not returned as malignant (tumors of female genital organs excepted) ..	23	1	73	1	273
51 Acute rheumatic fever	27	..	..	..	16
52 Chronic rheumatism, osteoarthritis, gout	100	..	29	..	491
53 Scurvy .....	..	..	..	..	1
54 Pellagra	1	..	..	..	..
56 Rickets	1	..	2	..	9
57 Diabetes mellitus	87	3	42	5	127
58 Anemia	105	3	40	..	119
59 Diseases of the pituitary gland	5	..	46	2	5
60 Diseases of the thyroid gland	39	..	47	..	136
61 Diseases of the parathyroid glands ...	..	..	..	..	1
63 Diseases of the adrenals (Addison's disease)	1	..	..	..	1
64 Diseases of the spleen	8	..	2	..	4
65 Leukemia and Hodgkin's disease	14	5	5	1	3
66 Alcoholism (acute or chronic)	17	2	7	..	33
67 Chronic poisoning by mineral substances	4	..	1	..	6
68 Chronic poisoning by organic substances	2	..	1	..	..
69 Other general diseases	89	4	50	..	644

REPORT OF THE SUPERINTENDENT

DISEASES	MEDICAL		SURGICAL		O. D. D.
	Disch.	Dead	Disch.	Dead	

III. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE

70 Encephalitis (does not include Encephalitis lethargica, cf. 23)	5	1	7	..	8
71 Meningitis (does not include meningitis specified as meningococcic, tuberculous, rheumatic, etc.)	8	2	8	1	..
73 Other diseases of the spinal cord	40	1	9	..	16
74 Cerebral hemorrhage, apoplexy	42	5	7	..	9
75 Paralysis without specified cause	10	..	10	..	17
77 Other forms of mental alienation	97	..	31	..	465
78 Epilepsy	13	..	15	..	23
79 Convulsions (non-puerperal) (5 years and over)	2	..	7	..	4
81 Chorea	5	..	..	..	11
82 Neuralgia and neuritis	17	..	45	..	76
83 Softening of the brain	2	..	..	..	4
84 Other diseases of the nervous system	102	1	26	..	482
Tumors of the nervous system (verified) (cf. also 49 and 59)	2	..	62	8	..
Tumors of the nervous system (unverified) .....	..	..	48	1	..
Tumors of the nervous system (suspect)	12	1	106	4	..
85 Diseases of the eye and annexa	62	..	29	..	226
86 Diseases of the ear and of the mastoid process	12	..	6	..	37

IV. DISEASES OF THE CIRCULATORY SYSTEM

87-90 Diseases of the heart	470	74	69	..	713
91, 92 Diseases of the arteries	299	6	124	3	407
93 Diseases of the veins (varices, hemorrhoids, phlebitis, etc.)	46	..	82	1	972
94 Diseases of the lymphatic system (lymphangitis, etc.)	5	..	52	..	79
95 Hemorrhage without specified cause ..	2	..	5	..	11
96 Other diseases of the circulatory system	240	..	90	..	636

PETER BENT BRIGHAM HOSPITAL

DISEASES	MEDICAL		SURGICAL		O. D. D.
	Disch.	Dead	Disch.	Dead	

V. DISEASES OF THE RESPIRATORY SYSTEM

97	Diseases of the nasal fossae and the annexa	38	..	18	..	121
98	Diseases of the larynx	11	..	1	..	11
99	Bronchitis	91	..	14	..	198
100	Bronchopneumonia (including capillary bronchitis)	83	6	30	1	2
101	Pneumonia	41	8	4	..	10
102	Pleurisy	38	1	23	..	31
103	Congestion and hemorrhagic infarct of the lung	15	..	5	..	2
105	Asthma	54	..	8	..	215
106	Pulmonary emphysema	45	..	3	..	58
107	Other diseases of the respiratory system	22	1	14	1	108

VI. DISEASES OF THE DIGESTIVE SYSTEM

108	Diseases of the mouth and annexa ...	81	..	52	1	221
109	Diseases of the pharynx and tonsils ..	71	1	99	..	196
110	Diseases of the esophagus	1	..	1	..	2
111	Ulcer of the stomach and duodenum ..	90	3	35	2	179
112	Other diseases of the stomach (cancer excepted)	34	..	7	..	159
114	Diarrhea and enteritis (2 years and over)	42	..	61	..	49
116	Diseases due to intestinal parasites ..	6	..	1	..	3
117	Appendicitis and typhilitis	1	..	133	5	137
118	Hernia, intestinal obstruction	42	1	147	5	172
119	Other diseases of the intestines	48	..	101	4	626
120	Acute yellow atrophy of the liver	1	1	..	..	..
122	Cirrhosis of liver	25	5	1	..	11
123	Cholelithiasis and cholecystitis	47	1	88	7	80
124	Other diseases of the liver	54	..	27	..	123
125	Diseases of the pancreas .....	..	..	4	1	..
126	Peritonitis without specified cause ...	6	..	17	..	10

REPORT OF THE SUPERINTENDENT

DISEASES	MEDICAL		SURGICAL		O. D. D.
	Disch.	Dead	Disch.	Dead	

VII. NON-VENEREAL DISEASES
OF THE GENITO-URINARY
SYSTEM AND ANNEXA

128	Acute nephritis	16	2	1	..	6
129	Chronic nephritis	38	5	3	..	67
131	Other diseases of kidneys and annexa (diseases of the kidneys in pregnancy excepted)	34	2	58	1	36
132	Calculi of the urinary passages	12	..	62	..	63
133	Diseases of the bladder	29	..	28	1	175
134	Diseases of the urethra, urinary abscess, etc.	4	..	19	2	34
135	Diseases of the prostate	16	..	64	5	94
136	Non-venereal diseases of the male genital organs	5	..	30	..	51
137	Cysts and other benign tumors of the ovary	2	..	28	..	16
138	Salpingitis and pelvic abscess	4	..	49	1	56
139	Benign tumors of the uterus	5	..	94	1	49
140	Non-puerperal uterine hemorrhage ...	..	..	13	..	36
141	Other diseases of the female genital organs	36	..	170	1	645
142	Non-puerperal diseases of the breast (cancer excepted)	1	..	20	..	22

VIII. THE PUPERAL STATE

143	Accidents of pregnancy .....	..	..	24	..	27
	Pregnancy normal	7	..	9	..	47
144	Puerperal hemorrhage .....	..	..	1	..	4
145	Other accidents of labor .....	..	..	2	1	6
146	Puerperal septicemia .....	..	..	3	..	..
147	Puerperal phlegmasia alba dolens, embolus, sudden death .....	..	..	2	..	1
148	Puerperal albuminuria and convulsions	..	..	1	..	1

PETER BENT BRIGHAM HOSPITAL

DISEASES	MEDICAL		SURGICAL		O. D. D.
	Disch.	Dead	Disch.	Dead	
IX. DISEASES OF THE SKIN AND OF THE CELLULAR TISSUE					
151 Gangrene	4	..	8	2	15
152 Furuncle	2	..	37	1	223
153 Acute abscess	12	..	44	3	192
154 Other diseases of the skin and annexa	57	..	39	..	478
X. DISEASES OF THE BONES AND OF THE ORGANS OF LOCOMOTION					
155 Diseases of the bones (tuberculosis excepted)	26	..	37	..	58
156 Diseases of the joints (tuberculosis and rheumatism excepted)	9	..	10	..	153
158 Other diseases of the organs of locomotion	12	..	29	..	366
XI. MALFORMATIONS					
159 Congenital malformations	13	..	41	1	33
XII. EARLY INFANCY					
160 Congenital debility, icterus, and sclerema .....	..	..	..	..	1
161 Premature birth; Injury at birth .....	..	..	..	..	7
XIII. OLD AGE					
164 Senility	11	..	4	..	7
XIV. EXTERNAL CAUSES					
166 Suicide by corrosive substances .....	..	..	..	..	1
172 Suicide by jumping from high places	1	1	..	..	..
174 Other suicides .....	..	..	..	..	2
176 Poisoning by venomous animals .....	..	..	..	..	10
177 Other acute accidental poisonings (gas excepted)	19	..	3	..	4

REPORT OF THE SUPERINTENDENT

DISEASES	MEDICAL		SURGICAL		O. D. D.
	Disch.	Dead	Disch.	Dead	
178 Conflagration .....	..	..	1	..	..
179 Accidental burns (conflagration excepted) .....	..	..	2	..	1
181 Accidental absorption of irrespirable or poisonous gas .....	..	..	..	..	1
183 Accidental traumatism by firearms (weapon of war excepted)	1	..	6	1	5
184 Accidental traumatism by cutting or piercing instruments	1	..	7	1	238
185 Accidental traumatism by fall	4	1	83	8	642
187 Accidental traumatism by machines ..	..	..	4	..	34
188 Accidental traumatism by other crushing (vehicles, railways, landslides, etc.)	2	..	83	7	393
189 Injuries by animals (not poisoning) ..	..	..	5	..	64
192 Starvation (deprivation of food or water)	1	..	..	..	..
193 Excessive cold .....	..	..	1	..	..
194 Excessive heat .....	..	..	1	..	2
196 Other accidental electric shocks .....	..	..	..	..	2
199 Homicide by other means .....	..	..	..	..	1
202 Other external violence (cause specified)	2	..	63	..	1357
203 Other external violence (cause not specified)	4	..	..	..	130

XV. ILL-DEFINED DISEASES

204 Sudden death .....	..	..	..	..	1
205 Diseases not specified or ill-defined ..	40	..	19	..	881
No disease	26	..	7	..	..

PETER BENT BRIGHAM HOSPITAL

Table II
Comparative Tables of Statistics

HOSPITAL WARDS AND SINGLE ROOMS

Patients in hospital first of year:

	1931	1930
Medical	69	100
Surgical	120	120
Total	189	220

Patients admitted during the year:¹

	1931	1930
Medical	1,899	1,911
Surgical	2,157	2,210
Total	4,056	4,121

Patients treated in hospital wards and private rooms during the year:

	1931	1930
Medical	1,968	2,011
Surgical	2,277	2,330
Total	4,245	4,341

Patients discharged during the year:

	1931	1930
Well	568	378
Improved	2,501	2,811
Unimproved	380	278
Untreated	337	403
Died	296	282
Total	4,082	4,152

Patients in hospital end of year:

	1931	1930
Medical	73	69
Surgical	90	120
Total	163	189

¹ The apparent discrepancy between these figures and those shown in the summaries of Surgical and Medical statistics on pages 111 and 135, respectively, are explained by the latter tables including transfers from Medical to Surgical and vice versa.

REPORT OF THE SUPERINTENDENT

Total patients days' treatment:

	1931	1930
Paying patients	34,293	37,459
Part-paying patients	16,388	15,771
Free patients	21,575	24,622
<hr/>		
Total	72,256	77,852

Percentage:

Paying patients	47+	48+
Part-paying patients	23—	20+
Free patients	29—	32—
<hr/>		
Total	100	100

Average patients per day:

Paying patients	94—	103—
Part-paying patients	45—	43+
Free patients	59+	67+
<hr/>		
Total	198—	213+
Medical	79—	89+
Surgical	119+	124—
<hr/>		
Total	198—	213+

Average time per patient in hospital	18—days	18—days
Daily average cost per patient	\$8.00+	\$7.68+
Daily cost per capita for provisions for all persons supported .....	.43+	.49—

Patients were admitted as follows:

Paying regular rate	1,981	2,108
Paying less than regular rate ...	858	832
Free	1,217	1,181
<hr/>		
Total	4,056	4,121

OUT-DOOR DEPARTMENT

Number of new cases treated	7,595	7,784
Medical	3,205	3,405
Surgical	4,212	4,178
Urological	178	201

PETER BENT BRIGHAM HOSPITAL

	1931	1930
Number of visits	71,188	76,523
Medical	39,979	43,493
Surgical	27,085	28,002
Urological	4,124	5,028
Cost of maintenance of Out-Door Department	\$51,456.67	\$53,963.24
Daily average cost per patient .....	.72+	.71—

AMBULANCE

Ambulance calls during the year	493	547
Average calls per day	1+	1+
Mileage for patients	4,486	4,567
Other business	1,097	2,026
<hr/>	<hr/>	<hr/>
Total mileage	5,583	6,593

REPORT OF THE SUPERINTENDENT

Table III

YEAR	EXPENSES	RECEIPTS	NUMBER OF PATIENTS ADMITTED TO WARDS	TOTAL DAYS IN HOSPITAL TREATMENT	AVERAGE STAY IN HOSPITAL	AVERAGE COST PER DAY PER PATIENT	DAILY CAPITAL COST FOR PROVISIONS PER DAY	DAILY CAPITAL COST FOR PROVISIONS PER DAY	AVERAGE COST PER HOUSEHOLD	AVERAGE COST PER DAY PROVISIONS	DAILY CAPITAL COST FOR PROVISIONS PER DAY	MAINTENANCE COST OF NEW CASES	TREATED NEW CASES	VISITS	AVERAGE COST PER VISITOR	OUT-DOOR DEPARTMENT		
																PER VISITOR	PER VISITOR	
1913	\$190,510.41	\$36,571.58	1,370	25,157	20—days	\$7.02—	\$0.53—	\$0.53—									30,434	\$0.33+
1914	256,423.25	69,251.23	2,843	49,295	17+days	5.15+	.35—	.35—									8,347	
1915	269,913.46	88,651.55	3,417	60,242	18—days	4.48—	.33+	.33+									8,536	.33+
1916	308,413.81	116,519.00	3,712	65,291	18—days	4.72—	.35—	.35—									9,810	.35—
1917	324,777.80	138,512.48	3,674	65,129	18—days	4.93+	.40—	.40—									10,995	.36—
1918	321,547.28	154,026.47	4,025	66,669	17—days	4.81—	.44—	.44—									7,952	.43—
1919	377,253.15	193,741.63	4,282	65,546	15+days	5.76—	.51—	.51—									7,631	.41+
1920	453,853.94	262,413.29	4,316	69,541	16+days	6.53—	.59—	.59—									7,862	.50+
1921	483,921.52	301,918.05	4,315	68,556	16—days	7.06—	.47—	.47—									7,707	.49+
1922	492,676.00	325,667.28	4,685	70,695	15+days	6.97—	.45+	.45+									8,111	.49—
1923	540,524.41	367,369.45	4,775	74,854	16—days	*6.64—	.47—	.47—									25,694.39	
1924	535,531.70	354,083.78	4,658	72,539	16—days	*6.83—	.46+	.46+									29,510.51	.51—
1925	557,252.24	365,749.62	4,422	72,411	16+days	*7.12—	.48+	.48+									28,157.67	.49—
1926	578,207.16	389,781.57	4,402	75,742	17+days	*6.97—	.48—	.48—									32,218.89	.54+
1927	620,177.85	412,568.64	4,607	78,645	17+days	*7.05+	.48+	.48+									33,753.42	.54+
1928	636,392.29	431,017.71	4,523	77,691	17+days	*7.25—	.48—	.48—									36,188.43	.56+
1929	663,064.84	456,916.54	4,472	78,743	18—days	*7.41—	.49—	.49—									48,802.11	.65+
1930	668,047.47	447,258.14	4,121	77,852	18—days	*7.68—	.49—	.49—									53,963.24	.71—
1931	668,839.02	418,586.38	4,056	72,256	18—days	*8.00+	.43+	.43+									51,456.67	.72+
																	7,595	
																	71,188	

* 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930 and 1931 do not include the cost of special nurses.

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Table IV
Expense and Revenue Statement

ADMINISTRATION EXPENSES

	1931	1930
Salaries, officers and clerks	\$36,212.31	\$35,142.40
Office expenses	278.00	
Stationery, printing and postage	7,414.71	8,022.47
Telephone and telegraph..	9,751.72	9,679.25
Liability insurance	2,100.79	2,659.21
Miscellaneous	800.22	1,105.30
Total administration expenses	<hr/> \$ 56,557.75	<hr/> \$ 56,608.63

PROFESSIONAL CARE OF PATIENTS

Salaries and Wages:

Physicians and surgeons	\$24,931.05	\$24,983.31
Sup't of nurses and assistants		
Nurses	10,397.62	9,014.72
Special nurses	26,615.73	22,609.79
Orderlies	73,843.42	77,919.37
Druggists	9,637.60	9,054.67
Ward employees	7,091.83	6,865.12
Clerks	11,668.83	11,892.49
Instrument repairs	14,998.43	15,607.55
	858.00	858.00
	—————	—————
	\$180,042.51	\$178,805.02

Training School:

Salaries	.....	\$ 4,755.40	\$ 5,094.31
Supplies	.....	2,889.03	3,607.55
	=====	7,644.43	=====
			8,701.86

Medical and Surgical Supplies:

Apparatus and instru-	
ments	\$ 3,513.68
Medical and surgical	
supplies	34,262.87
Alcohol, liquors and	
wines	1,307.36
	—————
	39,083.91
	—————
	38,308.03

Amount carried forward.. \$226,770.85 \$225,814.91

REPORT OF THE SUPERINTENDENT

	1931	1930
<i>Amounts brought forward</i>	<i>\$226,770.85</i>	<i>\$225,814.91</i>
Out-Door Department:		
Wages	\$18,361.12	\$18,485.21
Supplies	15,822.46	18,758.26
	34,183.58	37,243.47
X-ray Service and Photography:		
Salaries and wages ...	\$23,952.32	\$22,181.97
Supplies	20,992.86	18,259.29
	44,945.18	40,441.26
Library	800.00	800.00
Total professional care of patients' expenses	\$306,699.61	\$304,229.64

DEPARTMENT EXPENSES

Ambulance:		
Labor	\$ 3,088.00	\$ 3,078.00
Supplies	956.50	1,153.72
	\$ 4,044.50	\$ 4,231.72
Laboratories:		
Labor	\$15,988.39	\$15,173.14
Supplies	6,521.40	6,668.17
	22,509.79	21,841.31
Housekeeping:		
Labor	\$36,165.98	\$35,343.84
Supplies	13,210.62	24,690.66
	49,376.60	60,034.50
Kitchen:		
Labor	\$15,952.76	\$16,461.70
Supplies	1,662.00	2,552.31
	17,614.76	19,014.01
Laundry:		
Labor	\$10,887.22	\$11,592.55
Supplies	1,375.95	1,463.54
	12,263.17	13,056.09
Steward's Department:		
Labor	\$ 4,355.20	\$ 3,993.66
Provisions:		
Bread	2,782.29	3,156.30
Milk and cream	16,544.62	22,110.91
Groceries	16,973.36	19,285.26
Butter and eggs.	10,798.24	13,990.57
Fruit and vegetables	11,343.29	13,884.80
Meat, poultry and fish	27,826.87	30,283.04
	90,623.87	106,704.54
Total department expenses	\$196,432.69	\$224,882.17

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GENERAL HOUSE AND PROPERTY EXPENSES

	1931	1930
Electric department	\$ 4,597.77	\$ 4,648.56
Heat, light and power	55,964.18	52,603.41
Fuel	13.00	12.50
Gas	3,064.92	3,019.99
Ice	23.45	98.53
Insurance	2,993.05	832.27
Water	4,199.22	4,815.42
Maintenance real estate and buildings	14,162.18	17,332.87
Maintenance machinery and tools	67.29	38.81
Plumbing and steam fitting	7,616.83	6,887.28
Miscellaneous .....	.....	.....
Total general house and property ex- penses	\$ 92,701.89	\$ 90,289.64

EXPENSES FROM SPECIAL FUNDS

Fiction Library Fund ...	\$ 22.71	\$.....
Social Service Fund	6,696.65	6,073.55
Social Service Special Gift Fund	1,228.56	5.25
Christmas Fund	44.17	6.90
Diabetic Research Fund ..	1,152.84	683.74
Gray Fund	3,978.26	2,727.26
Renal and Vascular Dis- ease Fund	105.39	318.82
Permanent Charity Fund	2,025.00	2,150.00
Reynolds Scholarship Fund	125.00	125.00
Total Expenses from Special Funds	\$ 15,378.58	\$ 12,090.52

CORPORATION EXPENSES

Salaries, officers and clerks	\$	\$
Miscellaneous	\$ 1,068.50	\$ 624.00
Total corporation ex- penses	\$ 1,068.50	\$ 624.00

REPORT OF THE SUPERINTENDENT

SUMMARY

EXPENSES

	1931	1930
Total administration expenses	\$ 56,557.75	\$ 56,608.63
Total professional care of patients expenses	306,699.61	304,299.64
Total department expenses	196,432.69	224,882.17
Total general house and property expenses	92,701.89	90,289.64
Total hospital expenses	\$652,391.94	\$676,080.08
Corporation expenses	1,068.50	624.00
Capital expenditures .....	.....	.....
	\$653,460.44	\$676,704.08
 SPECIAL FUNDS:		
Social Service Special Gift Fund	\$ 1,228.56	\$ 5.25
Permanent Charity Fund	2,025.00	2,150.00
Social Service Fund	6,696.65	6,073.55
Diabetic Research Fund	1,152.84	683.74
Gray Fund	3,978.26	2,727.26
Fiction Library Fund	22.71	.....
Reynolds Scholarship Fund	125.00	125.00
Renal and Vascular Disease Fund	105.39	318.82
Christmas Fund	44.17	6.90
Grand total	\$668,839.02	\$688,794.60

REVENUE

	1931	1930
Administration receipts ..	\$ 1,543.88	\$ 1,632.84
 Professional care of patients:		
Board of private room patients	\$112,330.73	\$123,131.53
Board of ward pay patients	90,147.46	98,008.37
Special nurses	86,458.11	91,203.95
Out-Door Department..	47,154.65	51,885.58
Photography and X-ray	48,152.64	47,559.02
Miscellaneous	30,682.31	31,438.61
	414,925.90	443,227.06
 Department Receipts:		
Ambulance	2,116.60	2,398.24
Total hospital receipts ...	\$418,586.38	\$447,258.14
<i>Amounts carried forward.</i>	\$418,586.38	\$447,258.14

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	1931	1930
<i>Amounts brought forward</i>	\$418,586.38	\$447,258.14
Cash from Treasurer:		
Current expenses	\$234,874.06	\$229,445.94
Reynolds Scholarship Fund	125.00	125.00
Permanent Charity Fund	2,025.00	2,150.00
Social Service Fund ...	6,696.65	6,073.55
Diabetic Research Fund	1,152.84	683.74
Gray Fund	3,978.26	2,727.26
Fiction Library Fund ..	22.71	.....
Social Service Special Gift Fund	1,228.56	5.25
Renal and Vascular Disease Fund	105.39	318.82
Christmas Fund	44.17	6.90
	\$250,252.64	\$241,536.46
Grand total	\$668,839.02	\$668,794.60

Statement of Stock on Hand

	1931	1930
Administration supplies	\$ 4,168.74	\$ 3,640.38
Professional care of patients' supplies..	16,781.64	16,296.58
Department supplies	19,595.71	19,697.31
General house and property supplies ...	1,236.80	1,317.28
	\$41,782.89	\$40,951.55

Report of the Roentgenologist

SPEAKING of anniversaries, this is the tenth annual report of the present Roentgenologist, who voluntarily took upon himself the task back in 1922. Before that time the X-ray Department was not represented in that rather unique little book known as the "Annual Report." Since then I have tried to carry on the tradition of this hardy annual, or rather perennial, by presenting each year the news of the department, the developments, and such collateral comments and observations as seemed suitable. If I had realized the difficulties inherent in such annual reports, the desperate striving for something felicitous or unique or even mildly interesting, it might well never have been offered. Our department now has a growing list of graduates scattered around the country—our own family within the larger hospital family—and to these particularly this message is sent. In these ten years many changes have taken place but they have all been detailed year by year and there is no benefit to be derived from repeating them. Suffice it to say that in ten years the work of the department has doubled, and the staff has almost doubled. The income has more than doubled, and the expenses have kept pace with the income. More than twice as many films were taken this year as in 1922, five times as many dental films, twice as many treatments were given, and yet there were six hundred less patients admitted to the wards in 1931 than in 1922, and in the O. D. D. there were less than half as many new patients seen in 1931 as in 1922! The inferences are obvious. Usually they are herewith listed and explained to prove

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that they are obvious—I shall try to achieve unicity and stick to my statement.

We shall dispense with further statistics and the laments as to lack of funds and of available space, so common in annual reports, and take up the analysis of one group of cases as we have done for several successive years. This study is undertaken each year by the Assistant Resident in Roentgenology under my direction in order to determine our accuracy in diagnosis in that particular branch of work. It is obvious that by repeating the study under the same conditions several years later one may determine what progress if any has been made. It also gives us a critical attitude toward our own work which is of great value in curbing undue enthusiasm which is so apt to arise in the specialties. Furthermore, it gives us a definite basis for any statements which formerly were guesses, and it gives us a milestone by which we can judge our progress. When clinical facts or interpretations are included, collaboration is obtained from the personnel of the section involved avoiding the possible charge of unbalanced statistics or of errors in clinical judgment. With this preliminary explanation, we shall consider this year the diagnostic work done in X-raying the skulls and brains of 939 patients in 1931, with a total of 1,219 examinations.

We selected the group of skulls for our 1931 study as it was the last full calendar year in which Dr. Cushing presided over the surgical service and probably never again shall we see such a similar wealth of clinical material referred to us. As a matter of fact we made more examinations of the skull for the medical service than for the neurological service, at least in number of patients, but with far fewer positive findings, as the group referred from the neurosurgical service is highly

REPORT OF THE ROENTGENOLOGIST

selected and clinically rich material. It is difficult to estimate the diagnostic accuracy in such cases as the clinical course is often prolonged, the patient is seen by many people, the statements are often at variance, and the clinical opinions frequently differ. As a working basis we decided to limit our study to those patients who had their first X-ray examination of the skull and brain between January 1 and December 31, 1931. This forced us to extend the follow-up period well into 1932 to include those patients examined late in 1931 whose lesions were verified in 1932. Our results, therefore, are incomplete but they form a basis for study and comparison, and are as accurate as we could make them. Dr. Hare, Assistant Resident in this department, bore the brunt of the work and I can commend his careful and unbiased studies. To determine our percentage of correct diagnoses we considered only those cases verified either at operation or autopsy, with additional classes for those with only clinical or roentgenological verification. The outstanding diagnostic group was, of course, brain tumor, with its many sub-groups. Dividing the cases as to their point of origin we find that the great majority of the patients sent from the general surgical service for X-rays of the skull were sent because of suspected fracture or to confirm a clinical diagnosis of fracture. Because of an occasionally over-looked skull fracture with serious complications it has become almost routine to send all patients who receive blows or injuries to the skull for X-ray examination, the majority, of course, being with negative results. It might well be emphasized here that in definite cases of cerebral damage the X-rays are relatively unimportant as compared to the patient's clinical condition, and it is often wiser not to delay for the X-rays but to treat the pa-

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tient for shock or hemorrhage and then get the X-rays later. Furthermore, it is often difficult to obtain satisfactory X-ray films on a patient who has just been injured, as many of my residents called to do midnight examinations will testify, and poor films with negative findings may lead to a false sense of security. The amount of acute traumatic work brought to this hospital is small, as compared with the City hospitals, as is shown in Table A summarizing the cases from General Surgery:

TABLE A
SKULL X-RAYS, 1931
GENERAL SURGERY

New Cases	162
Re-examinations	5
<hr/>	
Total Examinations	167
Question of Fracture asked Clinically	135
Fracture of Vault	9
? Fracture of Vault	2
Fractures other than Vault	7
Separation of Sutures (Traumatic)	1
 OTHER FINDINGS	
Paget's Disease	2
Pituitary Adenoma	1
Synostosis Cranii	1
Calcification of Internal Carotid	2
Angioma of Vault	1
Bullet in Vault	1

By comparison, the Medical Service sent us almost three times as many patients for X-rays of the skull, and the interesting thing is that in this group, quite comparable with any other hospital with a 125-bed service, there were found 18 brain tumors (verified) and 8 other calcified or destructive tumors (unverified). In other words patients with brain tumors are

REPORT OF THE ROENTGENOLOGIST

often present in the general wards of the hospital, and in considerable numbers. Table B gives the detailed findings in this group:

TABLE B

MEDICINE

New Cases	413	
Re-examinations	30	
	Total Examinations	443

Verified Tumors	18
Clinical Diagnosis, Location	11
Clinical Diagnosis, Type	3
X-ray Diagnosis, Location	12
X-ray Diagnosis, Type	3

OTHER FINDINGS

Unverified Calcified Tumors or Tumors with Destruction of Vault	8
Synostosis Cranii	5
Paget's Disease	7
Angioma of Vault	1
Aneurysm Internal Carotid (Unverified)	1
Calcification of Internal Carotid	14

The striking thing in this group is the high percentage of diagnosis made by X-ray. This group is made up largely of patients from Boston or its environs, coming to this hospital not because of its reputation as a brain tumor centre, but with complaints which would warrant admission to the Medical wards of any similar institution anywhere but includes cases, presumably brain tumor cases, sent to the Medical wards for preliminary study. With the exception of the latter it should serve, therefore, as an index of the frequency of brain tumors in the general hospital, this particular year showing 1,900 admissions to the Medical wards, almost one patient in every 100 having a brain tumor diagnosed and verified.

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During a recent address on this subject in a neighboring city it was stated that only one case of brain tumor had been diagnosed in that city in the past five years and that they were, therefore, extremely rare. But in the four weeks following that address and discussion four patients all with brain tumors were received at this hospital from that same city!

Of particular interest in this year's study is the group of patients referred to us from the Neuro-surgical Service. In this group (patients whose first X-ray examination was made in 1931), there have been 157 subsequently found to have one form or another of brain tumor. This group was quite difficult to assay as to our diagnostic accuracy, as we had the benefit of some of the clinical findings, and the clinicians had the benefit of our X-ray findings after the first day in the hospital. We tried to be as reasonable and as just and as accurate as possible in calculating the following percentages but it must be admitted that there is considerable chance for both errors of omission and commission to creep in. But let us give the figures first and then explain how they were secured (Table C).

TABLE C

NEUROLOGICAL SERVICE

1. New Cases X-rayed	363
2. Re-examination	130
3. Total	493
4. Verified Tumors	157
5. Preoperative Diagnosis, Location	135-86%
6. Preoperative Diagnosis, Type	61-38%
7. X-ray Diagnosis, Location	73-47%
8. X-ray Diagnosis, Type	41-26%
9. Diagnosis Definitely Aided by X-ray ...	36-23%
10. Diagnosis Entirely by X-ray	9- 7%
11. Diagnosis Misleading by X-ray	6- 4%

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In the first place the re-examinations are quite high as it is customary at the time of discharge to have a post-operative set of films made as a record on many of the patients with verified tumors. This often is of great importance, as the position of calcified areas, bone particles or the silver clips used during operation may be changed by a recurrence of a tumor, and the position and size of the recurrence may be estimated by the shift in the position of these shadows, particularly of the opaque silver clips. The fifth line in the table "Clinical Diagnosis as to Location," is the preoperative diagnosis by majority opinion or by authoritative opinion as recorded in the hospital records, and includes all the evidence on each case, including the X-ray findings. The following line should show a higher percentage, as the chronological development of symptoms or the location of signs and the age of the patient often give a definite clue as to the type of tumor, but it was not put down in writing and could not be counted in several cases where it was fairly definite.

The figures on the seventh line, "X-ray Diagnosis as to Location" are more reliable. In each case we summarize our findings, when positive, and draw such conclusions as are justified, and these are all down in writing before much of the other work has been done or its results known. It is astonishing, therefore, that we are able to predict the location of the brain tumor in almost one-half of the cases and guess accurately as to its histological type in one-quarter of them. This is a very decided advance in diagnostic accuracy as compared with the results in previous years and in different groups. (The individual groups will be considered in Table D.) It must be emphasized that these figures are obtained from the study of plain X-ray films, stereoscopic, of course, and in different positions and direc-

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tions, but not including ventriculograms. (Table E will show the results after ventriculography.)

The other figures, lines 9, 10 and 11, we consider quite accurate, the difference between the 47% of line 7 and the 30% of lines 9 and 10 being those cases which were diagnosed clinically and in which the X-ray findings were merely confirmatory. This has been a moot point and I, for one, am glad to have the accurate figures and actual percentages for reference. The final line includes all of the cases where changes in the X-rays were reported suggesting the presence of a tumor but in which no tumor was found, or in which it was found in a different location.

By analyzing the diagnoses in the different kinds of tumors we established the table below:

TABLE D
NEUROSURGICAL SERVICE

Pituitary Adenomas	22
Diagnosed by X-ray	20-91%
Meningiomas	24
Localized by X-ray	16-67%
Acoustic Neurinomas	17
Confirmed by X-ray	9-53%
Cerebellar Tumors	24
X-rays Compatible, not Diagnostic	11-45%
Gliomas—In Hemispheres	49
Localized by X-ray	14-28%
Calcification Visible in X-ray	9-18%
Pineal Displacement Aiding Localization, All Cases	13
Pineal Displacement Misleading	1
Metastatic Tumors Verified	6
Pituitary Adenomas Verified by X-ray only	9
Calcified or Destructive Tumors—X-ray only ...	8

Of the twenty-two pituitary adenomas, three were not suspected clinically and two were not properly

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diagnosed by X-ray examination. Of these two, one tumor contained calcification extending above the sella and was called a craniopharyngioma, the other one was an entirely suprasellar adenoma with a normal sella.

The meningiomas are of particular interest to us in that so many of them show characteristic changes on the X-ray films allowing us to make a localizing diagnosis in two-thirds and a histological diagnosis in one-third. This is lower than our usual percentage, as almost half of the total number give enough evidence on the X-ray films to suggest the histological type of tumor with which we are dealing. It is interesting that the X-rays in three cases showed similar changes which were found not to be associated with a tumor of this type.

In the acoustic neurinomas the diagnosis is nearly always accurately made by the chronological development of signs and symptoms and by physical examination, and the X-ray examination is merely confirmatory, except occasionally when it establishes another diagnosis. When positive, the typical findings are those of an enlarged internal auditory meatus on one side with more or less erosion of the petrous bone around it. We have found an accurate antero-posterior stereo showing the petrous ridges in the centre of the orbits to be our most valuable position for determination of this point in diagnosis.

Similarly in cerebellar tumors the X-ray examination is of confirmatory value only in the great majority of cases with the rare exceptions where calcification in the tumor renders it visible. There are no characteristic changes, but just the general signs of pressure plus atrophy of the dorsum sellæ and usually a forward bending of the posterior clinoids.

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In the largest group of all, the gliomas, a few may be located by thinning of the bone directly over the tumor (apparently when the glioma is on the surface of the brain), a few more by displacement of the pineal gland shadow, and 18% of them may be located and might be identified by the calcium content which is often considerable, particularly the oligodendrogliomas and some of the astrocytomas. Measurable displacement of the pineal gland shadow was of localizing value in thirteen cases of the 157 tumors, and inaccurate in one case. This latter was a patient with a tumor blocking the aqueduct of Sylvius and with a resulting internal hydrocephalus. The dilated ventricles pushed the pineal gland backward and downward but not laterally, leading us to assume the presence of a midline frontal tumor. Fortunately the clinical evidence was quite definite and the only error was on our part.

The remaining entries are self-explanatory and would raise the total considerably and our percentages moderately had they been verified by operation or autopsy.

The last group of cases separated for study is the one in which ventriculography was done. This method of direct tap of the cerebral ventricles, removal of cerebrospinal fluid, and replacement by air, followed by suitable X-ray examination in at least four positions, was employed 116 times in 1931 as shown in Table E.

TABLE E
VENTRICULOGRAMS

Total Examinations	116
Verified Tumors after Ventriculograms	62
Tumors Located Correctly	59- 95%
Failure due to Unsatisfactory Filling ..	2
Incorrect Localization	1
Normal	21
Tumors Located, Not Verified	8

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Following this procedure in 116 cases, sixty-two tumors were verified. These were correctly located in fifty-nine, and in two of the failures the mistake could be attributed to incomplete filling of the ventricles, an error in technique for which we were not responsible. This leaves one positive error which occurred during my absence and which may be attributed to insufficient experience. In other words this method is a very exact one when performed properly, but is associated with a very definite risk. I shall not attempt to discuss the mortality from this diagnostic method as it is entirely outside my field, and I doubt if anyone could give the accurate percentages in such a group as an operation is the usual and immediate sequel when an accessible tumor is demonstrated. The eight "tumors located, not verified" were mostly of the inaccessible type, a few deemed not operable for other reasons.

A final group, not numerically appraisable, is the one in which the X-ray examination was negative in the face of clinical signs. This is frequently of value, as for instance, in patients with the local signs of pituitary tumor but with a normal sella, or again, patients with the signs and symptoms of a space-occupying tumor in a hemisphere but with normal ventriculograms. We can simply say that negative X-ray findings are often of value, sometimes of positive value as well as of value in ruling out tumors and beg the question of percentage.

I cannot leave this section of our work without recording my appreciation and that of my entire staff of the rare privilege and pleasure it is to do such work for our retiring "Chief." His stimulus will never be lost and his example is one to be emulated.

A few pleasant notes and one of minor key and our tenth annual report is ended. The sad note is that in spite of an increase in the amount of work, the income

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decreased, and, for the first time since 1919, fell below the expenses leaving us with a deficit of about \$830.00 for the year. This, however, is not remarkable in this period of suspended prosperity, and could have been avoided only by sacrificing the quality of the work, which was unthinkable. We hope that 1932 will show a better outcome, and all efforts are being made to balance our budget for the coming year without hampering the work to be done. One of the pleasant things to be recorded is a two months' brain-dusting trip abroad during the summer, aided by a grant from the trustees of the hospital. The trip included the Roentgenological centres of Germany and Austria, as well as the Third International Congress of Radiology held in Paris. It may be of interest to know that most of the Roentgenological knowledge acquired abroad was gathered from the famous pathologists and pathological laboratories. After all, our branch of medical science is really pathological—a study of the shadows cast by various forms of gross pathology—with a dash of pathological physiology and considerably normal anatomy thrown in. There could be no better training for Roentgenologists than a thorough grounding in anatomy and gross pathology, and a close association with the Department of Pathology is essential in the continuous acquisition of knowledge which is so valuable.

There have been the usual changes in personnel during the year, Dr. Pickwick completing his two-year service June 30, and continuing his work as Graduate Assistant at the Massachusetts General Hospital and the Pondville State Hospital, later accepting a position in the practice of Roentgenology in Fitchburg. His place as Assistant Resident was filled by the promotion of Dr. Hare, and the position of House-officer was awarded to Dr. Joseph Marks, a graduate of Harvard Medical

REPORT OF THE ROENTGENOLOGIST

School who has completed the usual term on the Medical Service of this hospital. We regret to record the resignation of Mrs. Heard (née Margaret Murtagh) who has been our amiable and efficient secretary for five years. Her place was filled by Miss Hewes who came to us from the Robert Breck Brigham Hospital. There have been no changes in the technical staff this year.

I might summarize these ten years which have passed so quickly and so pleasantly as one continuous course of post-graduate instruction for the Roentgenologist who has relayed the knowledge obtained to others and they still further so that we have shared in carrying the torch. It has been ten years rich in experience and of unbroken harmony and cooperation.

M. C. SOSMAN,
Roentgenologist.

DECEMBER 31, 1931.

TABULATION OF DATA, TEN CONSECUTIVE YEARS

YEAR	Ward Cases	O. D. D. Cases	Private	All Others	Totals	X-ray Treatments	Films Taken	Dental Films	Alpine Lamp Treatments
1922	3,200	3,207	698	191	7,296	629	13,696	2,457	....
1923	3,702	2,835	960	210	7,707	764	14,144	2,506	467
1924	3,869	3,283	1,031	200	8,383	916	15,408	3,530	1,097
1925	3,948	3,479	1,163	228	8,818	809	18,366	2,905	1,487
1926	4,299	3,420	1,269	214	9,202	618	21,575	2,928	765
1927	4,307	3,924	1,061	477	9,769	490	24,270	3,019	1,264
1928	4,846	4,307	1,112	607	10,872	1,162	26,172	2,941	1,719
1929	5,092	4,606	1,296	524	11,518	1,277	27,842	3,603	1,476
1930	4,945	4,602	1,252	496	11,295	1,302	26,523	4,490	1,411
1931	4,602	5,213	1,329	385	11,529	1,420	26,433	7,254	802

Report of the School of Nursing

THE year ends with the following staff of graduate and student nurses:

Superintendent of Nurses and Principal School of Nursing	1
Assistant Superintendent of Nurses	1
Instructors	2
Supervisors	5
Night Supervisors	2
Graduate Head Nurses and Assistants in De- partments	18½
Graduate Floor Duty Nurses	9
Graduate Nurse Anesthetists	4
Masseuse	1
Student Nurses	120
	163½

Sixty-five students entered, one was re-admitted, two received by transfer from the Army School of Nursing and the School of Johns Hopkins Hospital. Thirty-eight students have been graduated, thirty-three have withdrawn, and one has died.

The total number of student sick days was 890, of graduate nurse sick days, 195. The Metropolitan Life Insurance Company has found the year 1931 to be "the most remarkable health year on record." Our figures would seem to bear this out.

The seventeenth annual graduation exercises were held November 12th in the Assembly Hall at Simmons College. Mr. Curtis, President of the Corporation, presided and the address was made by Dr. William Darrach, Professor of Surgery, College of Physicians and Surgeons, Columbia University, New York, also chair-

REPORT OF THE SCHOOL OF NURSING

man of the Committee on the Grading of Nursing Schools. The Dr. John P. Reynolds gold medal was awarded to Marion Ethel Eastman of the graduating class. The John P. Reynolds scholarship was awarded to Ruth Gladys Pearl, a student in the five-year combined course with Simmons College who, in two years of hospital work, attained an average of 96.2%.

During the year the School has been visited by an inspector from the Nurses' Examining Board of the Board of Regents of the state of New York, who found some things to commend and others to criticize.

Affiliations provide one of our most satisfactory methods of teaching and experience for the students. Theory and practice are sure to be correlated on affiliated services. This year affiliation at Children's Hospital has been increased from three to four months for each student. This is to provide one month of experience in the new department for communicable diseases. The first students to have this experience were five who went to the Children's Hospital in June and who were in the new ward in September in the height of the anterior-polio-myelitis epidemic. Their interest and enthusiasm at being privileged to participate in that work was gratifying and inspiring, both to the officers of the Children's Hospital and to us. The number of Children's Hospital nurses coming to us for adult medical and surgical work has been increased from thirty-four to forty in the year. It has been necessary to reduce the number going to the Massachusetts Eye & Ear Infirmary from twelve to eight. It is hoped that the usual number may be restored next year. During this year we have increased the number going to McLean Hospital for psychiatry from four students to six. This teaching and experience are proving extremely valuable to those selected students who are so fortunate as to have it.

PETER BENT BRIGHAM HOSPITAL

A few changes in the graduating nursing staff have occurred—the most important being the addition of Martha O. Sayles, class of 1929, as Instructor in Sciences in place of Katharine Bell who resigned after holding that position three and one-half years. Knowing the difficulties of unemployment, most nurses are striving to retain their positions, and there is less moving from one type of work to another. This is true in most institutions and is to the advantage of the hospital, because it means a much smaller turn-over of personnel, a more stable organization, and a more experienced group of workers.

The number of enrolled students is considerably below our average. Entering classes have been of the usual size, but an exceptionally large number have been dropped or have withdrawn. This shrinkage can be attributed to no single reason. To provide adequate nursing care, the student group has been supplemented by the addition of a number of graduate general duty nurses. This serves a dual purpose, that of nursing our patients and of giving regular employment to several nurses at this time of irregular employment, especially in the private duty field. My personal wish is that we should be increasing the graduate staff and reducing the size of the student group as a matter of policy rather from necessity.

At the request of the Grading Committee, whose work has been mentioned in previous reports, last spring Doctor Howland and Miss Gilmore made a study of costs of nursing care of patients. Figures are available for the cost of nursing in the hospital by the School of Nursing, but for purposes of comparison with a paid service of graduate nursing the costs were estimated. It is safe to say that these evaluations were very conservative. Yet this study presented some surprising

REPORT OF THE SCHOOL OF NURSING

figures, and disclosed that the School is saving the hospital annually nearly \$20,000. This figure corresponds with results in schools in other hospitals studied by the Committee. It shows that student nurses not only pay for their education through their services, but are definite contributors to the treasuries of hospitals. These students should not be expected to carry such economic burdens for our hospitals, and are frequently less well able to do so than many of the patients whom they serve. The tradition that the School of Nursing must carry the nursing load of the hospital binds it with an invisible chain, strong as iron, to the apprenticeship system of learning. The introduction of training for nurses sixty years ago did more than any one thing to make hospitals decent places for the care of the sick of all classes. The hospitals were quick to sense the economic value of the rotating student group.

But we live in a rapidly changing world and the methods of sixty years ago may not be the best today. No more than fifteen or twenty years ago, we were probably right in saying that there were plenty of opportunities after graduation for well-trained nurses. After the World War and the influenza epidemics of 1918 and 1919, the cry of the shortage of nurses was heard from one end of the country to the other. In good faith I, with many others, participated in active campaigns to attract young women into nursing schools and we were successful in securing large numbers of girls. About six years ago we began to understand that nursing, outside of institutions and organizations, was a seasonal occupation, with many weeks in the year when graduate nurses were unemployed. Presently those impressions were confirmed by statistics from the Grading Committee. Nurses began to feel the pinch of unemployment before this depression and

PETER BENT BRIGHAM HOSPITAL

general unemployment situation were upon us. After three years of intensive preparation many nurses are now able to earn no more than many stenographers with only a few weeks of preparation because there are too many nurses. But hospitals, large and small, continue to enroll students in numbers sufficient to do the work of the hospitals regardless of what their economic fate as graduates may be.

Unhappily, while there exists an excess in number of graduates, there is also a dearth of well-prepared nurses for many positions in hospitals and the public health field. It appears that the demand is for quality rather than quantity. It has been stated many times in recent years that the education of nurses is not a proper charge on the hospital's income and endowments. Nor does it seem fair for the hospitals to secure their nursing so cheaply through a School of Nursing that it makes those students such large contributors to the hospitals' budgets. Until such time as it becomes recognized that the consumer must pay for nursing care as he does for every other necessity in life, I believe that the hospital's responsibility in the program of nurse education will not be changed materially. A basic graduate nursing service in hospitals supplemented by a smaller student service would be more expensive than the present system. It would transfer the weight of the nursing load from the student body to the graduate group and should insure more stable nursing care to patients. I believe that such a change would be much less revolutionary today than the removal of Sarah Gamp and the introduction of the modern nurse in training sixty years ago. It is essential that student nurses continue to have practical experience and teaching under supervision in the wards of the hospitals. But many of the subjects essential for the nurse could be better taught in colleges

REPORT OF THE SCHOOL OF NURSING

or universities than in hospitals. The system of educating the nurse should not differ materially from other forms of higher education, all of which depend upon endowments for their proper functioning.

CARRIE M. HALL,
Principal.

DECEMBER 31, 1931.

Report of the Social Service Department

THE past year has presented an unusual number of serious social problems occasioned by the continued hardship of unemployment. In several instances families previously well above the dependency group have this year required financial assistance.

These families have put off the grim day of asking for material relief as long as possible. They have used their hardly acquired savings; remortgaged their homes; borrowed on their life insurance policies until finally with unpaid rent and unpaid grocers' bills they have been reluctantly obliged to ask of Social Service, assistance in procuring outside financial aid. This stress of financial worry is an especial danger to a cardiac patient and has in some instances caused a marked increase of cardiac symptoms. This is clearly indicated in the following case:

In the early part of 1930 an attractive 12-year-old American girl was referred to the Cardiac Clinic with a diagnosis of potential heart disease following chorea. She was one of six children ranging in age from two years to fourteen. Her father owned a trucking business which brought him on the average \$50.00 a week. The parents were intelligent and the home was comfortable and well furnished in a desirable neighborhood. At this time there appeared to be no social need other than the regular medical follow-up; to see that the doctor's recommendations were fully understood and that the patient returned to the clinic at regular intervals. However, at a subsequent clinic visit in July, 1931 it was found that the patient had been losing weight, her color was poor and there were very marked signs of choreic activity.

REPORT OF THE SOCIAL SERVICE DEPARTMENT

In questioning the mother it was discovered by the social worker that several months earlier her husband's trucking business had dwindled to the point where he was obliged to give it up for lack of trade. Through a friend he had recently obtained a position as clerk in a small fruit shop where he was now earning only \$20.00 a week, the entire support of a family of eight. As some time elapsed between the losing of his business and the finding of another job the family was obliged to draw upon its small savings. Added to this the mother had become pregnant. The accumulative effect of the parents' anxiety on the patient was such that bed care was advised.

Because of the presence of five lively brothers and sisters in the home, the proper rest for a choreic patient could not be given there. Arrangements were therefore made with the Children's Mission for bed rest in a foster home where there was a practical nurse in charge. The patient has steadily improved but has continued to remain in the country for several months longer in order to stabilize the gain made.

In the meantime plans were carried out for prenatal care for the mother and free admission at the time of her confinement in an excellent maternity hospital.

This case reveals only one instance of the definite relation between long continued unemployment and the health of a cardiac patient.

In one or two instances it has been possible to secure daywork for the mother of a family during the period of the father's enforced idleness. In events of this sort the father assumes the care of the home and children to the best of his ability during the mother's absence. For instance:

A capable Scotchwoman, mother of four boys one of whom was being followed in the Cardiac Clinic, was almost sick with worry over her husband's inability to find work. Her own condition of hypertension was being aggravated by this worry. With the doctor's consent daywork for three days a week was secured for her through the Emergency Employment Bureau conducted by the Women's Educational and Industrial Union.

The father with the help of the boys managed the household during the mother's absence. The mother's mind is consider-

PETER BENT BRIGHAM HOSPITAL

ably less harassed now that there is sufficient money to feed the family.

Continued schooling for the boys and girls who in other years might more readily have left school to enter industry, has been constantly urged by the social worker. The year has been an unusually appropriate one for the consideration of training for skilled work and, as formerly, for this we have turned to the well established training centers such as the Trade Schools and the Vocational Guidance Department of the State Rehabilitation Section.

, ,

Problems of interpretation and of mental adjustment are many, with patients receiving long series of luetic treatments. A busy mother who has unwittingly contracted "the disease" from her husband, the unskilled workman who is fortunate enough to have a job and the elderly and infirm patients are among the types for whom the social worker is called upon to arrange a workable plan for regular attendance on treatment days. Volunteer drivers from the Red Cross and Family Welfare Society have been helpful in transporting patients unable to come in by themselves. Transfers to other clinics to accommodate working hours or to save transportation are frequently made. As the Wednesday clinic has moved into the rooms used by the Cardiac Clinic, a better opportunity is afforded the social worker to discuss problems with the individual patient.

REPORT OF THE SOCIAL SERVICE DEPARTMENT

LUETIC STATISTICS

Patients brought forward from December		
31, 1931	314	
New cases referred	135	
Men—82		Women—53
Reinstated	12	
Total membership during 1931	461	
Closed during the year	112	
Present membership, December 31, 1931	349	
Total number of patients during 1931	461	
Men—226		Women—235
72 single	53 single	
149 married	161 married	
4 widowed	10 widowed	
1 divorced	11 divorced	
191 white	209 white	
35 colored	26 colored	
Discharged	112	
Transferred to other hospitals or L.M.D.	43	
Discontinued treatment	32	
Probably cured	9	
Died	8	
Seen in clinic—no definite diagnosis made	5	
Lapsed treatment (reported to Board of Health by name)	15	
Total number of letters sent	586	
Special Wednesday clinic letters	470	
Board of Health letters	102	
Special blood test letters	14	
(Letters returned unclaimed—45)		
Total number of visits to clinic during year	6,943	
Men—3,835		Women—3,108

PETER BENT BRIGHAM HOSPITAL

G. C. STATISTICS

Patients brought forward from December 31, 1930		75
New cases referred		37
Men—34		Women—3
Reinstated		18
		—
Total membership during 1931		130
Closed during the year		57
		—
Present membership, December 31, 1931		73
Total number of patients during 1931		130
Men—121		Women—9
55 single		3 single
60 married		5 married
4 widowed		0 widowed
2 divorced		1 divorced
		—
109 white		7 white
12 colored		2 colored
		—
Discharged		57
Transferred to other hospitals or L.M.D.		9
Discontinued treatment		24
Probably cured		18
Died		0
Lapsed treatment (reported to Board of Health by name)		6
Total number of letters sent		142
Special G. C. letters		103
Board of Health letters		39
(Letters returned unclaimed—8)		
Total number of visits to clinic during year		1,187
Men—1,151		Women—36

In the course for dietitians, one month is spent in the Social Service Department. Mornings are given over to clinic work, and afternoons to calls on patients with dietary problems. One dietitian reports as follows:

REPORT OF THE SOCIAL SERVICE DEPARTMENT

I. Time in Social Service—One month.

Total number of calls—30.

Conferences—2.

II. A—Procedure of call.

1. Introducing one's self and telling patient calling for P. B. B. H.
2. Patient's condition.
 - a. Is patient on diet?
 - b. Is patient following diet?
3. Does patient test urine?
 - a. How often? What color (if diabetic)?
 - b. If not—why?
4. Any conditions in home or relationship with other members of family that prevents patient from following instruction and treatment.
5. Very brief description of home and neighborhood.
6. Has my call (dietitian's) helped in any way?

B—Report in written form.

1. Date of visit.
2. Name—address.
3. Diet understood by patient—facilities.

III. Kinds of calls—number of each.

Diabetic—16.

Malnutrition—13.

Obesity—1.

IV. General Impression.

I found the majority of patients very willing to co-operate with the Social Service Department. With the exception of two calls, every one has felt the depression keenly. Some of the patients were morbid due to their financial status while others had little or nothing to do but to think about their condition. Five cases were decidedly neurotic. I do not remember any one specific case in which the family was destitute. Every patient was most grateful for the call. I feel that I helped ten cases, at least, with problems pertaining to their diets.

V. My own personal opinion.

I think an excellent way to see the dietary problems that confront a person is by making a visit to the home

PETER BENT BRIGHAM HOSPITAL

of the patient. Personally, I like to meet people of all classes. I think the student dietitians realize that we must study foreign cookery, which many of our naturalized citizens continue to practice in our country, and make up in the diets to these people, the essential foodstuffs for a good diet. This work has been full of interest and most enjoyable.

* * *

The outstanding problem to be faced in the Diabetic Clinic is that of providing insulin for patients who are unable to pay for it.

Insulin is very expensive and moreover has to be taken two or three times a day for long periods of time. Ordinarily we can raise money from outside agencies for nursing and convalescent care, glasses, teeth, etc. but there are no resources from which we can get money for this treatment.

There is very great need especially now for a fund which can be used to supply insulin for patients who are unable to afford this added item of expense to an already insufficient income.

* * *

The Gastro-Intestinal Clinic presents a field for intensive social as well as medical study. Patients whose major difficulties are stomach disorders of various types are faced with two practical problems; regulation of living and working conditions and obtaining and following a diet. Many attending this clinic are subject to irregular working hours or to continued mental and emotional upsets.

With these facts in mind, a special study is being made by the Social Service Department of a group of patients picked out at random, to determine if these factors influence or aggravate the stomach condition and how much, if anything, can be accomplished by

REPORT OF THE SOCIAL SERVICE DEPARTMENT

readjustment. In the small group already studied, a large per cent of patients have various psychopathic tendencies in addition to physical disorders. A few have been benefited through the Social Service Department by opening up new channels of work and interests, but a psychiatric consultant would undoubtedly be of help with this group.

As the majority of patients are on special diets, a dietitian is present during clinic to explain the diet to each patient and suggest ways of adapting it to meet the different requirements. If the diet calls for an extra expenditure which the patient's financial budget will not permit, he is then referred to the social worker who is present in the clinic and who tries to make an economic plan to meet the need, frequently asking an interested social agency to supply extra funds.

A follow-up study of more than 1,400 patients for over a period of five years is being made by Doctor Emery and Doctor Monroe, for the purpose of finding out what actually happens to ulcer patients; *i.e.*, the effect of different kinds of treatments, the frequency and cause of remissions and what is being accomplished by treatment. To facilitate this study, 383 letters to patients not heard from for over six months were sent out by the Social Service Department. One hundred and five patients receiving letters have already reported at clinic and others have responded by letter or telephone message to the social worker. An earnest effort is being made to keep a careful follow-up of clinic patients. Eight hundred and twenty-eight visits by 315 patients were made to the clinic during 1931, an average of 16 patients to a clinic.

PETER BENT BRIGHAM HOSPITAL

*Brought forward from previous year	478
New cases referred	540
Reinstated	123

These patients were referred from:

	House	O.D.D.	Total
Medical service	138	225	363
Surgical service	107	73	180
Outside agencies .....	..	..	30
Patients .....	..	..	27
The Children's Hospital ..	..	..	24
Admitting office .....	..	..	5
Relatives .....	..	..	6
Other sources .....	..	..	28

STEERING AND FOLLOW-UP

Outside agencies, steering and follow-up service	519
Follow-up letters and postcards	3,461
Visits to homes of patients	733

CARDIAC CLINIC

Brought forward from January 1, 1931	396
New cases referred	99
Reinstated	29
	—
Total membership during year	524
Closed during year	137
	—
Present attendance January 1, 1932	387
Total number of visits to clinic	1,349
Average number at clinic	15
Largest number at any one time	32
Smallest number at any one time	3
Of the ninety-nine new cases referred (age division being made at 16 years inclusive) there were:	
26 men, 29 women, 24 boys, 20 girls	
Referred from Medical O. D. D.	57
Referred from House Medical	12

* Patient referred for some definite social problem. These figures do not include social contacts in clinic, and follow-up service.

REPORT OF THE SOCIAL SERVICE DEPARTMENT

Referred from Surgical O. D. D.	2
Referred from outside (including T.C.H.)	28
Of the present clinic of 387 members, there are:	
99 men, 143 women, 67 boys, 78 girls	

* * *

One thousand nine hundred forty-four dollars and twenty cents was raised for patients needing special nursing and outside hospital care, extra nourishment, apparatus, dentistry, glasses and transportation from the following sources:

"Divers Good Causes," <i>Boston Transcript</i> ...	\$307.00
Benton Fund	138.50
Lotta Crabtree Estate	400.00
Lend A Hand Society	105.00
Weber Charities, Inc.	217.50
Benevolent Individual	222.00
Eckley Fund	70.00
Invalid Aid Society	11.00
Jillson, Mrs. F. C.	25.00
John Clarke Fund	42.00
Home for Aged Men—Contribution for liver extract for an Outside Beneficiary given through Miss Christine McLeod	125.00
Miscellaneous	281.20

As in previous years we have given supervised field work to students from the Simmons College School of Social Work.

We take this opportunity to gratefully acknowledge the help and assistance given us by the Ladies' Committee the past year.

We also wish to express our appreciation for the financial aid which the Permanent Charity Fund, Inc., has given.

PETER BENT BRIGHAM HOSPITAL

STAFF OF WORKERS

General Service

ALICE M. CHENEY, R.N.

Cardiac Clinic

THEKLA ANDREN

KATHARINE A. HOMANS (volunteer)

Surgical Service—Diabetic Clinic

OLGA ALEXIEFF

MRS. F. C. JILLSON (volunteer)

Goiter Clinic

ESTHER W. ATWILL (volunteer)

Medical Service—Luetic Clinic

SALLY BRIGGS

Medical Clinic—Arthritic Clinic

MARGERY L. CROTHERS

CLERICAL STAFF

AGNES DAY QUALTER

ADDIE M. COOLIDGE

ALICE M. CHENEY, R.N.,
Chief—Social Service Department.

Report of the Pathologist

THE figures for the department are as follows:

Autopsies, medical service	119
Autopsies, done outside for medical service ...	0
Autopsies, surgical service	61
Autopsies, done outside for surgical service ...	0
Autopsies, neurological service	28
Autopsies, done outside for neurological service	11
<hr/>	
Total number of autopsies recorded	219
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General autopsies recorded	193
Neurological autopsies	39
<hr/>	
	232
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Recorded autopsies	232
Autopsies counted twice	13
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Actual total	219
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Reports on surgical specimens	1,174
Reports on neurological specimens	172
Reports on bacteriological specimens	1,100
Guinea pig inoculations for suspected tuberculosis	169
<hr/>	
Total	2,615

There were 296 deaths in the hospital, of which 171 were medical, 94 were surgical and 31 were neurological. Nineteen deaths, 3 medical and 16 surgical, were investigated by the Medical Examiner.

The percentage of autopsies for the year after deducting the 19 cases taken over by the Medical Examiner proves to be 75%. The percentage of autopsies

PETER BENT BRIGHAM HOSPITAL

for the various services after making corrections for autopsies twice entered is: Medical 70%; Surgical, 78%; neurological, 90%.

The number and percentage of autopsies for all years are:

Year	Number	Per Cent
1931.....	219.....	75.0
1930.....	192.....	64.4
1929.....	240.....	68.6
1928.....	219.....	59.6
1927.....	196.....	63.4
1926.....	179.....	62.0
1925.....	204.....	70.7
1924.....	177.....	70.0
1923.....	153.....	58.0
1922.....	174.....	68.0
1921.....	158.....	62.8
1920.....	155.....	58.2
1919.....	102.....	40.0
1918.....	145.....	40.0
1917.....	114.....	55.6
1916.....	113.....	49.5
1915.....	101.....	47.6
1913 and 1914.....	147.....	58.5

The number of surgical and bacteriological examinations made each year are:

Year	Number
1931.....	2,615
1930.....	2,577
1929.....	2,649
1928.....	3,497
1927.....	2,821
1926.....	3,101
1925.....	2,613
1924.....	2,819
1923.....	2,708
1922.....	2,391
1921.....	1,984

REPORT OF THE PATHOLOGIST

1920.....	1,826
1919.....	1,628
1918.....	2,224
1917.....	1,248
1916.....	1,140
1915.....	1,030
1914.....	847

Changes in the staff in the last year are as follows:

Dr. Rudolf Osgood succeeded Dr. Reuben Z. Schulz as Resident Pathologist July 1, 1931.

Dr. Darwin E. Bennett succeeded Dr. James Perry Tollman as House Officer July 1, 1931, for six months and was succeeded by Mr. Mark D. Altschule, of the fourth year in Medicine, to serve for six months.

Dr. Fred M. Marquis served for six months from July 1, 1931, as House Officer when he was forced to leave on account of severe dermatitis due to formaldehyde; his place was taken for a period of six months by Mr. John Denison Houghton, of the fourth year in Medicine.

S. B. WOLBACH,
Pathologist.

DECEMBER 31, 1931.

Report of the Surgeon-in-Chief

DR. JOHNSON once said that he who runs against time has an antagonist not subject to casualties. This I am quite ready to believe, for with each annual lap time seems to have accelerated his pace leaving me on this, the twentieth, greatly in need of a second wind. Some twenty-five years ago, a group of enthusiastic and rebellious young American surgeons, most of them, though still in their thirties, already holding university positions, inaugurated a new sort of society at whose meetings the customary reading of tiresome papers was to be replaced by the objective presentation of one's work. To secure entrée to a particular clinic over which an older man, actually in his fifty-fourth year, then held sway, an exception was made in his favor and the age of enforced retirement was put at fifty-five years! With the bumptiousness of youth, it seemed inconceivable to us that anyone could properly do surgical operations much after that age.

So when the regulations of the Brigham Hospital specified some ten years later that all officers should retire at a given age and sixty-three was hit upon as a reasonable jumping-off place, two decades seemed a long way ahead. And though a year ago the Board of Incorporators generously proposed to extend this limit in my case for another three years, recalling what had once been thought of fifty-five, the offer was declined as establishing an unwise precedent.

Where these twenty years have gone is difficult to say. There were two long interruptions—or rather one—for they ran into each other and both had something to do with the War. A brief service in 1915 at

REPORT OF THE SURGEON-IN-CHIEF

the American Ambulance in Paris—an effort subsequently to organize a Base Hospital for the Red Cross—two years in France followed by a polyneuritis with slow, incomplete recovery—the death of a friend whose son I saw buried in the Flanders mud and whose biography I agreed to write, little realizing how long it would take. Nine, almost ten years gone before one could bat an eye, and the real work of building up the surgical reputation of a newly established hospital scarcely begun.

And just now after a period of pseudo-prosperity, we are in the slough of the great depression almost as demoralizing as was the War itself out of which it grew. Between battles during the War, some men loafed and groused while others found ways of profitably occupying themselves. So in slack times like the present, it's a wholesome discipline to be one's own employee and to keep at work on some self-appointed task, however unremunerative. One advantage of being a doctor is that something useful can always be found to do and those who imagine they "kill time" at golf, the bridge table, and the movies while waiting for a job, injure themselves more than they punish time.

Caught in the pinch of the depression, the Brigham Hospital like all other charitable institutions, has been obliged to curtail its expenditures and practise the most rigid economy. For this reason it was proposed at the turn of the year that the publication of this annual report should be omitted. Protest was raised against this suggestion on the following grounds: that once discontinued, the reports in their present form would in all probability never be resumed; that if they have been worth printing in the past, they are worth keeping up even if we had to go begging to meet the expense; that they provide a continuous record of the hospital's

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activities and changes of personnel which will become increasingly valuable as time goes on; that they serve as the only possible medium whereby an interest in the affairs and activities of the Hospital on the part of those formerly connected with it may be kept alive. It was intended at the start that these reports should break away from the traditional emphasis laid on the administration of the trust, as though this rather than the work of the clinicians was the chief purpose of the foundation. In a certain sense, therefore, they have typified the youthfulness, the vigor and the spirit of the Hospital and its intention to establish its own new traditions and express its own individuality.

It has in many respects been a unique institution. I know of no place where administration, professional staff, and school of nursing have worked in greater harmony, no place where good-will, loyalty, and fair play have been continuously more in evidence, no place where patients receive better care, more individual attention and sympathy. This is partly due, I think, to the fact that the Hospital has remained small and compact and intimate. It has altered its arrangements here and there and plans for changes and improvements are always on foot, but outwardly it is much the same, its working organization like its bed capacity remains unchanged, and growth has been in reputation rather than in size.

Bigness, though held up and worshiped as the American ideal, is no measure of effectiveness and permanency. The dinosaurs have gone while the bee and the ant survive. So the mammoth hospitals of the present day, like overgrown organizations of other kinds, find themselves from their very unwieldiness at a disadvantage in times of stress like the present. There are of course other opinions about this—each to his own taste.

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But it's a good rule of life to be thankful for what you have and to make the most of it; and this may explain why in an earlier one of these reports in attempting to answer the question of how large should a hospital be, the Brigham in spite of its many imperfections, was thought to be about the right size for economic operation and real effectiveness. To this opinion my colleagues may not wholly subscribe, nor, indeed, my successor, Dr. Cutler, who is to come back to us from an experience in a much larger institution; but I have so often seen expansion followed by deterioration in quality of work, by diminished productiveness from excessive administrative burdens, and by disharmony among rival workers that I confess to be fearful of it.

IN RETROSPECT. The hospital's opening had not been notably propitious. The inevitable delays of construction were such that the restive surgical staff, tired of marking time, finally crowded their way into and took over for their purposes the ward which happened to be nearest completion. There a make-shift operating equipment was set up and on January 27, 1913, our first patient, Mary Turner of Roxbury, not only was cured of her varicose veins but was sufficiently satisfied with the attention she received to return to us in later years whenever she sought relief for other and sundry complaints. Two months elapsed before a medical ward was finally opened with the admission—on March 31, 1913 to be exact—of one Maurice Promisel whose renal hypernephroma necessitated his subsequent transfer to the surgical service for a nephrectomy.

We were still, some weeks later, in a milieu of scaffolding and dirt and noise and wet concrete when Sir William Osler, who happened to be on a visit in the country, was asked to come and give us his blessing.

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His impromptu but altogether appropriate remarks of congratulation and admonition, made on that blustery day of April 30, 1913, were taken down and in part published some years later in the sixth of these Annual Reports (p. 55). After speaking in his familiar vein of the three major purposes of a hospital—the *care of the patient*, the *instruction of the students*, and the *extension of knowledge*—he went on to say that what he regarded as the most important and significant thing about our program was that the clinical chiefs were taking an important step in medical education by giving their services on a university basis as practically full-time men.

Some day an impartial and unabridged history will be written of the important movement that has come to be known as the full-time plan for clinical departments. What initiated the movement was, I believe, an address¹ by L. F. Barker, then Professor of Anatomy in the University of Chicago, in which a vigorous plea was made for the establishment of hospitals especially constructed and endowed for university purposes where clinicians, well enough paid to permit them to forego private practice, might "devote their whole time and strength to teaching and investigation." Three years later, in 1905, Dr. Barker was appointed Osler's successor in the Chair of Medicine at the Johns Hopkins.

Our American medical schools at that time, mostly proprietary in character, were unnecessarily numerous and most of them of an inferior type. The American Medical Association after an elaborate survey had already succeeded in a quiet way in closing the doors of some of the least worthy schools when in 1910 there appeared Mr. Abraham Flexner's elaborate report to the Carnegie Foundation for the Advancement of Teaching

¹ *Medicine in the University.* Am. Med., July 26, 1902, iv, 143.

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on "Medical Education in the United States and Canada." This sensational publication served to call public attention to the deplorable conditions that prevailed and had a profoundly beneficial effect not only in accelerating the elimination of many poorly equipped and conducted medical schools but at the same time in raising the standards of the survivors. While in this monumental report the Johns Hopkins was singled out and held up to view as approaching the ideal, only two years elapsed before the clinical departments of this particular school came privately, by the same virile pen, to be severely criticized. To correct what were regarded as abuses of their academic positions a full time service for the chiefs of the clinics was proposed and though there were differences of opinion, the program, financed by the General Education Board, was finally adopted and, with Dr. Barker's resignation, in January, 1914, put in full operation.

Meanwhile, in 1912 Dr. Christian and I, in full accord with the general principles of a whole-time service, were in the process of coming to a working arrangement with the Board of Incorporators of the Brigham Hospital. Their original proposal, that we give half-time to the hospital and half-time elsewhere to our private practice, was looked upon as an arrangement unfavorable to the future development and reputation of the hospital on which we hoped to concentrate our energies. This implied some provision however modest, for the reception of private patients. While the sick poor of Suffolk County had been uppermost in the testator's mind, he could scarcely have foreseen in 1870 that they would fare better in a teaching hospital with a university connection, where no distinction would be drawn in the matter of care between the indigent and those able to pay their way. And after an opinion favorable

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to this view had been legally handed down, the cautious administrators of the fund finally acceded to our alternative proposal and I trust have had no reason to regret it.

So it came about that we were the first clinical teachers, so far as I know, who desired and were permitted to give their undivided attention to the work of a teaching hospital and to confine their professional activities within its walls. In so doing we were to have the privilege of accepting fees from patients who might consult us during such hours as we felt justified in setting aside for this purpose. It was foreseen that the privilege of thus supplementing a meagre hospital salary was one which might come to be abused, but experience proves that with the increasing growth of the hospital we tend from year to year to give less rather than more time to our private affairs.

Subsequently, through funds provided by the General Education Board of which Mr. Flexner by now had become the Director, the major clinical departments at Johns Hopkins, as already stated, were put upon a full-time clinical basis which differed from our own in a single respect—and this, be it said, was regarded by the sponsors of the plan as an all-important difference—namely, that the institution rather than the attendants was to collect and utilize the fees from private patients. Here, then, appeared to be an opportunity to put to the test of time a controlled experiment regarding a new and revolutionary academic policy. Would the holders of full-time clinical chairs on a larger and fixed salary prove in the long run to be more stimulating teachers, more productive investigators, and better hospital servants than would those who are at liberty to supplement a smaller salary through personal dealings with their private patients? The answer might then have been

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foreseen: namely, that the personal characteristics of those chiefly concerned will determine whether they will be happier and, therefore, accomplish more on one or the other basis.

Our self-imposed program, however, was not permitted to stand unchallenged for in October 1931, after some overtures, the General Educational Board offered to give the Harvard Medical School a million and a half dollars provided the chiefs-of-clinic at the Brigham Hospital would agree to serve as full-time officers on the same financial basis as that about to be instituted in Baltimore. The Medical School was then in debt and the promised financial relief would have been a veritable windfall; but I never could convince myself that those here who pressed us to accept the restrictions imposed by the gift (apart from several of our preclinical colleagues) were interested as much in the principle involved as in securing the gift. On my own part, a term of service limited to twenty years with an academic salary on which a family of children were to be educated and no pension in sight in case of accident or ill health seemed a dubious proposition. I doubted, moreover, whether such an arrangement would in any way activate me and feared, indeed, that it might encourage indolence. If the purpose of the plan was to prevent the attendants in university hospitals from exploiting their position for their personal ends, there was just as much reason to fear, human nature being what it is, that hospital superintendents and trustees might be tempted in a pinch to exploit their salaried professional attendants. With no pretense to be anything more than an amateur investigator, I could not see that a fixed salary would either improve my status in this respect or give me any more freedom for such researches as I was capable of directing or undertaking.

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And coming of a race of general practitioners, the intimate and confidential relation between doctor and patient—one of the most precious things in Medicine—was in my blood and I could not look upon the cold institutional program with any great enthusiasm, much less with any expectation that it would serve to make something out of me that I was not already.

To make the story short, more or less active negotiations regarding this highly disconcerting proposal were on foot from October, 1913 until March, 1915 when the first Harvard Medical Unit sailed for France. At this time pressure upon me had become such that I felt obliged to put my resignation in the hands of the University to act upon during my absence as they saw fit. I did not feel justified in longer blocking the project and was quite willing to relinquish my chair in favor of some younger man who had come to assume fewer responsibilities and obligations. On my return three months later, it was learned that conferences had been held and the proposal found to be unacceptable to the Hospital Trustees. So, after this prolonged distraction at the very outset, we started in once more to see what might be done on our originally planned basis.

In view of all this, it is not improper after this interval briefly to mention some of the things that appear to have been accomplished for the good of the School and the Hospital under our particular kind of full- or whole-time service. They may be separately considered under Osler's three purposes of a hospital—the care of the patient, the instruction of students, and the extension of knowledge.

CARE OF THE PATIENT. What the patient costs a hospital *per diem* is not necessarily an indication of the care bestowed upon him, but it nevertheless is a weathercock

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in that direction, and it may be learned on consulting the consecutive reports of the Superintendent that this cost has risen from \$4.48 in 1915 to \$8.00 this past gloomy year. A still better indication is the number of persons who in one capacity or another have to do with the patient's welfare, and there prove to be 311 names on the Hospital payroll in addition to twenty-seven unpaid house officers and between ninety and one hundred nurses. Nor does this tell the whole for it fails to include some twenty associate members of both medical and surgical departments several of whom give their entire time to the Hospital without putting it to any expense, volunteer workers in the laboratories and Social Service Department, secretaries who are paid for by members of the staff, special nurses who are paid for by patients who can afford them, or from a private and special fund when patients urgently need and can't afford them. And there presumably should be included the members of the Board of Corporation, and the committee of faithful women who help raise money to keep our Social Service Department running, and the student clinical clerks and dressers who contribute willing and helpful hands while they are learning something from us. Thus for every patient occupying one of our 250 beds, there must be at the lowest estimate an average of two persons who in one capacity or another are continuously doing something for his well being.¹

These figures serve to show what a large number of people in these modern days are concerned with the care of hospital patients from the time of their admission to the time they are back at home to remain if necessary under the watchful eye of a social service

¹ Though comparisons are odious, I learn from a friend who administers the affairs of a large, overcrowded civic hospital with eight times our number of beds that only three times the number of persons of all stations are engaged in the patient's welfare, most of the attending physicians, indeed, only serving periodically for a few hours a day. Their patients, therefore, may be said to receive three-eighths of the attention we lavish upon ours.

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worker or to report periodically at a class of ambulatory patients afflicted by a common disorder; and even if they need no further attention after being discharged they find themselves written to at varying intervals for news of their progress and condition.

In all this the Brigham probably differs in no marked respect from many another hospital; but I know of none where a more whole-hearted effort is made not to lose sight of John and Mary while treating their malady. A hospital ward can be a cheerful instead of a melancholy place if the rule is followed never to pass a bed without doing something for the person in it, be it only a nod of recognition or a smoothed pillow or a word of encouragement.

There at the same time can be little question but that the patient is better safeguarded in an institution where the senior attendants are on continuous duty, for there is no telling when sudden emergencies may arise which call for interstaff consultations and decisions without loss of time. In this respect it would seem to make little difference whether the attendants are restricted to an institutional salary or are permitted to collect fees from those few who can afford and wish to consult them privately, but I have a strong feeling that under the latter system the patient is less likely to be considered "a case" and more likely to receive the intimate personal attention he yearns for and is entitled to expect.

Two years' experience in the Army was enough to show me that nothing is so conducive to inferior work as the absence of any sense of personal responsibility to the wounded man or his relatives and dependants. This was entirely assumed by the government and all the administrative officials expected of us was to get through with the largest possible number of operations

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during our periods of duty so that they might evacuate the cases with the greatest possible speed. There were no checks, no possibility of following the case to learn what had happened, and indeed objections were raised to any attempt on the part of a medical officer to do so. The problem might have been momentarily interesting but the wounded man himself passed through essentially unknown and disregarded.

I do not wish to imply that a salaried medical officer in a peace-time hospital would fall into these sorry ways; but there is no doubt that the obligation put upon him of some intimate contacts before and after an operation with the patient and his relatives is a relation that instills a far greater sense of responsibility in the immediate task and insures a greater permanency of contact with the patient's further progress than could be expected if these transactions are left to an administrative official who collects an institutional fee.

The latter arrangement must lead, however unconsciously, to impersonal surgery, which is not what most of us, much less our family, would desire when our time comes. In short, it is the doctor's duty and privilege to learn from the patient something of his social and financial status if for no other reason than that it may be determined whether he should pay anything beyond his hospital bills or indeed whether one may not actually wish out of his own pocket to contribute something toward his keep. And when these rules are made to apply to the few patients who can afford private accommodations, they come automatically and by force of example to apply to the far greater number of public ward patients, who deserve and cherish the same intimacy and deserve and get the same attention and professional care which for each and every one is the best we can give.

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INSTRUCTION OF THE STUDENT. So far as the undergraduates are concerned, we may take a modicum of credit to ourselves for having revolutionized their status in the several hospitals affiliated with the Medical School by admitting them for the first time to the wards and operating rooms as participants in our work rather than as mere onlookers. Several years elapsed before the other hospitals could be persuaded that it was safe to have fourth year students "clean up" in their operating rooms and play a minor part in operative procedures.

There were two things, novel in this community, which from the outset made it possible for us to introduce this custom. One was the substitution, in place of the old-time instruction in standard operative procedures on the cadaver, of a course of operations on living animals in which the same ritual in its smallest detail was observed that was practised in the hospital operating room itself. Another safeguard lay in our junior staff organization whereby selected men who had passed through the house-officer grades constituted a senior residential staff eager and accustomed to teach and who could be depended upon to instruct the students and to oversee them in their minor surgical duties. It is now difficult to say whether the hospital gets more out of the fourth-year students or they out of the hospital; the benefit is mutual and we have come largely to depend on them not only as co-workers but as a stimulus, for the very example which we are obliged to set for them keeps us on our marks. We were the first also to provide ample laboratory space for the senior clinical clerks, and our annual contribution to the school library has had no little to do with the fusion of the former departmental collections of books into a

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general library of excellent character continuously accessible to all.

Osler, we may be sure, intended in his remarks to include graduate with undergraduate students; and our contribution as a hospital to graduate teaching has been largely centered upon the meticulous training of our junior staff. This from a surgical standpoint is a highly responsible business for it means the gradual induction of young men to the point where they may safely and with confidence carry out their own operations with the least possible or with no supervision. What is more, if a surgeon sets about to inoculate his juniors with the idea that by dint of hard work and perseverance they may qualify for a career in academic surgery, he takes on an added responsibility for there is not only a limit to the number of teaching positions that might conceivably lie open for them, but the preparatory road is a long one. "Who chooseth me must give and hazard all he hath." They must not only prove themselves skillful handicraftsmen with native surgical instincts and at the same time indicate that they have a natural aptitude for teaching, but they must begin to put themselves on paper, learn to present their subject in hand acceptably before an audience, show some capacity for independent research, have the robust health which promises to stand the strain of surgery, and finally must not marry too early, and then beyond peradventure the right person.

Not only is the competition heavy but unless one is pulled or pushed, the steps that lead up the pyramid from house officer to assistant resident, to the laboratory, to the residency, are high and each of them takes one or more years to negotiate. And if there should then, as is desirable, be thrown in an additional year or two abroad, it's been a long and expensive apprenticeship

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with no certainty of reaching the top where at best there is standing room for few. But a surgical house officer need not pass through all these grades in order to have a successful career; on the way not a few, indeed, find that their talents, tastes and opportunities for service lie wholly in other directions than those leading to academic preferment.

Whatever may be the subsequent attainments of those who have received at least a portion of their education within its walls, it is from this source that a hospital as a training ground for graduates draws its chief reputation; and though twenty years is a short time to make an appraisal it is gratifying to find that more than half of the *circa* two hundred men who began their service here as internes or in some higher rank already hold teaching positions in one or another of the better medical schools in the country. Many of them, indeed, have attained positions of professorial grade, not always in surgery, to be sure, which goes to show that a preliminary surgical training may be a help rather than a handicap in preparation for some other line of work. While their names and present positions may be found in the register appended to these reports, it may not be taken amiss to assemble them here.

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| 1912-15 | Emil Goetsch, Prof. of Surg., Long Island College Hospital. |
| 1912-20 | Conrad Jacobson, Formerly Assoc. Prof. of Surg., U. of Minn. |
| 1913-15 | Walter M. Boothby, Assoc. Prof. of Med., Univ. of Minn. |
| 1913-14 | John J. Morton, Prof. of Surgery, Univ. of Rochester. |
| 1913-14 | Charles Bagley, Jr., Prof. of Neuro-Surg., Univ. of Maryland. |
| 1913-14 | Carl W. Rand, Asst. Prof. of Clin. Surg., U. of S. California. |
| 1913-17 | Edward B. Towne, Assoc. Clin. Prof. of Surg., Leland Stanford. |
| 1913-32 | Gilbert Horrax, Asst. Prof. of Surgery, Harvard. |
| 1913-24 | Elliott C. Cutler, Prof. of Surgery, Western Reserve Univ. |
| 1913-15 | Samuel H. Hurwitz, Assoc. Clin. Prof. of Med., Leland Stanford. |
| 1914-15 | Stanley Cobb, Prof. of Neuropathology, Harvard. |
| 1914-15 | Edwin P. Lehman, Prof. of Surgery, Univ. of Virginia. |
| 1914-15 | M. N. Smith-Peterson, Asst. Prof. of Orthopedics, Harvard. |
| 1914-17 | Samuel C. Harvey, Prof. of Surgery, Yale. |
| 1915-18 | Clifford B. Walker, Asst. Prof. of Surg. (Ophth.), U. of S. Cal. |

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1915-16	George W. Van Gorder, Assoc. Prof. of Surg., Pek. U. Med. Coll.
1915-16	James C. Janney, Asst. Prof. of Gynaecol., Boston Univ.
1915-19	William S. McCann, Prof. of Medicine, Univ. of Rochester.
1917-20	John J. Keegan, Dean and Prof. of Neuro-Surg., U. of Neb.
1917-20	Vincent J. O'Conor, Asst. Prof. of G. U. Surg., Univ. of Ill.
1918-19	Steele F. Stewart, Asst. Prof. of Surg. (Orthop.), U. of S. Cal.
1918-19	Wilder G. Penfield, Prof. of Neurol. and Neuro-Surg., McGill U.
1919-21	Howard Fleming, Asst. Prof. of Clin. Surg., Univ. of Calif.
1919-28	Percival Bailey, Prof. of Neurol., Univ. of Chicago.
1920-21	F. E. B. Foley, Asst. Prof. of Urol., Univ. of Minnesota.
1920-22	William E. Brown, Asst. Prof. Prev. Med., U. of Cincinnati.
1920-22	Maxwell Harbin, Asst. Prof. Orthop. Surg., Western Reserve.
1921-23	Dan C. Elkin, Prof. of Surgery, Emory Univ.
1922-23	James J. Joelson, Asst. Prof. of G. U. Surg., Western Reserve.
1922-23	A. Elmer Belt, Assoc. Prof. Surg., Coll. of Med., Los Angeles.
1922-24	W. J. M. Scott, Assoc. Prof. of Surg., Univ. of Rochester.
1922-27	W. P. Van Wagenen, Assoc. Prof. Surg., U. of Rochester.
1923-28	Clarence E. Bird, Prof. of Surgery, Univ. of Louisville.
1923-24	Lewis C. Foster, Asst. Prof. of Surg., Yale.
1923-24	Emile Holman, Prof. of Surgery, Leland Stanford.
1923-25	R. Glen Spurling, Asst. Prof. of Surg., Univ. of Louisville.
1923-24	Loyal Davis, Assoc. Prof. of Surg., Northwestern Univ.
1923-27	Claude S. Beck, Asst. Prof. of Surg., Western Reserve.
1924-25	S. Gibbs Milliken, Asst. Prof. of Pathology, Univ. of Texas.
1924-26	David M. Rioch, Asst. Prof. of Anatomy, Harvard.
1924-27	Ashley W. Oughterson, Asst. Prof. of Surgery, Yale.
1927-28	John F. Fulton, Prof. of Physiology, Yale.
1927-28	Vincent Vermooten, Asst. Prof. of Urology, Yale.
1928-30	Eric Oldberg, Asst. Prof. of Surg. (Neuro.), U. of Illinois.

EXTENSION OF KNOWLEDGE. Opportunities for this always lie before a clinician if it is only through a more accurate study than has previously been made of a group of patients having the same malady in common. Whether at bedside or laboratory there is always something that remains to be learned about every disorder, even the most commonplace one, if restudied from a new angle. It may be a matter of deducing certain facts from pure observation or of seeing the significance of something to which others have been blind; and those who possess mechanical ingenuity rarely fail to develop some novel device or to perfect some method of diagnosis or operative treatment which amounts to the taking of a forward step in knowledge.

Though curiosity and the thirst to satisfy it is common to all, not everyone has the imagination or training to put questions which interest him to experimental test, and even when blessed with these qualities most clinicians find themselves hampered by the very nature of their essentially practical activities. Yet I fail to see in what manner Jenner's or Lister's contributions were any less dignified or worthy of praise than those, for example, of Claude Bernard. Why research should be stultified and looked upon as impure if undertaken with a practical end in sight is difficult to understand; and this was unmistakably Pasteur's goal in the problems of his later years. But this attitude toward clinical research, as something inferior to such laboratory investigations as have no ostensible immediate application, has given the clinician an inferiority complex, has tended to inhibit his productive activity, and has made him look with some apprehension on the quality and number of publications that may have come from his department. There are either too many of them to be of high grade or too few to justify the opportunities of recording new facts and principles that lie on all sides.

So if an apologia is needed for the seven hundred or more papers from the surgical clinic that in the past twenty years have been listed in these successive annual reports, it is only necessary to say that it is looked upon as part of a house officer's training not only that he learn to speak before an audience extemporaneously, if it is only to present a case for discussion, but that he put together for publication the results of some study, however humble it may be. Some of the best men, full of ability and ideas, may have to be literally pushed into the inkpot because of their fear of composition, and they must painfully learn that this is never an inborn

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gift but something acquired by lamentation and perseverance.

One of the privileges pertaining to the Moseley Professorship of Surgery at Harvard is the appointment each year of a research fellow in surgery on a foundation, established (under circumstances told in an earlier report, 1928, page 87) by the late Dr. F. C. Shattuck in memory of his friend and contemporary, Arthur Tracy Cabot. Where the appointees should spend their time or what should be the direction of their studies was unspecified, but the first of them, Dr. Weed, owing to the delayed opening of the hospital was put in charge of the existing Laboratory of Surgical Research at the medical school rather than in the projected surgical laboratory of the hospital. Thus, by what now I look upon as a fortunate combination of circumstances, the admirable traditions of this fellowship have been built up in the school where they serve as almost the last remaining formal link between any of the clinical departments and the preclinical laboratories, some of them now almost independent institutes, which flourish there.

Recalling my own unusual opportunities as a young man in having direction of a small research laboratory at the Johns Hopkins, the successive A. T. Cabot Fellows have in their turn been given full responsibility for the conduct, budgetary expenditure and productivity of this departmental plant. That this confidence has not been misplaced is shown by the one hundred and sixty-four papers so far printed and accredited to this laboratory, by the spirit which the many subsequent workers there have shown in emulating the tradition left by the first incumbent, and by the positions which he and many of those who succeeded him subsequently attained. Their names follow:

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1912-14	Lewis H. Weed, Prof. of Anatomy, Johns Hopkins.
1914-15	Gilbert Horrax, Asst. Prof. of Surg., Harvard,
1915-16	Samuel C. Harvey, Prof. of Surgery, Yale.
1916-17	William S. McCann, Prof. of Med., Univ. of Rochester.
1917-19	No appointments.
1919-20	George B. Wislocki, Prof. of Anatomy, Harvard.
1920-21	Percival Bailey, Prof. of Neurol., University of Chicago.
1921-22	Roger C. Graves, in practice, Boston.
1922-23	W. J. M. Scott, Assoc. Prof. of Surg., Univ. of Rochester.
1923-24	Claude S. Beck, Asst. Prof. of Surg., Western Reserve.
1924-25	Lester R. Whitaker, Asst. in Surg. and Inst. in Anat., Boston U.
1925-26	Tracy J. Putnam, Instructor in Neuropath., Harvard.
1926-27	Arthur J. McLean, Inst. in Surg. and Neuropath., U. of Ore.
1927-28	John H. Powers, Asst. Surg., Bassett Hos., Cooperstown, N. Y.
1928-29	Harold M. Teel, Abroad on Mission for Gen. Educ. Board.
1929-30	Paul Martin, Asst. in Surg., Univ. of Brussels.
1930-31	Richard H. Meagher, Resident Surgeon, P. B. B. H.
1931-32	Richard U. Light, Asst. Resident Surgeon, P. B. B. H.

The activities of the A. T. Cabot fellows under the circumstances mentioned have come to be carried out in the surgical laboratory in the school rather than in the rooms set aside in the hospital for a similar purpose. It was in these latter quarters that Dr. Boothby, one of the early members of the surgical staff, after a period of training with Professor Haldane in Oxford began his important studies of the metabolism of patients with endocrine disorders—studies which have been of far-reaching consequence both for medicine and for surgery. Had it not been for the interruption of the War and for Dr. Boothby's subsequent appointment at the Mayo Clinic where opportunities lay before him to pursue his investigations on a larger scale, the metabolism observations on our hospital patients might have remained in surgical hands rather than in those of our medical colleagues who were naturally eager and better equipped to take over the work. What small laboratory space this left for us for surgical purposes has been occupied by those engaged in furthering my special problems to which reference may now briefly be made.

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SURGICAL SPECIALIZATION. Is the chief surgeon in a general hospital entitled to devote himself exclusively to a special field of work? This is a question I have often secretly asked myself and the answer, presumably, would be that it depends upon circumstances. The circumstances which in my case have made it possible have been my implicit reliance from the outset on the judgment, skill and high sense of responsibility of my immediate Juniors, Drs. Cheever and Homans, who in later years have been ably supported by the Drs. Newton. Their outstanding ability and experience as general surgeons, who make no pretense at specialization, have left me free to expend my energies in the cultivation of my favorite field. In so doing, the stand has been taken that if I were to claim for myself all of the neurosurgical patients who sometimes occupy an undue proportion of the surgical beds, my colleagues in all fairness should be given control of all the other cases. While this unquestionably was a proper subdivision of our work, I confess to many a pang from foregoing the privilege of putting my hand now and then to the sort of tasks in general surgery which I was brought up to do.

Thus it has come about that a semi-independent neurosurgical school has grown up within the general surgical clinic and whether this should have been allowed to continue much longer is perhaps doubtful. While the general surgical experience of my juniors has been widening, mine has been narrowing, and though I continued eagerly to teach the principles of general surgery, even this was given up when my weekly clinics for third-year students were eliminated by a change in the curriculum: and should the inevitable swing of the curricular pendulum lead to the resumption of clinical lectures in general surgery for third-

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year students in a body, almost anyone of my juniors could now qualify to take them on much better than I could. To put all this in a nutshell, it is fair to say that no one could properly be considered eligible to the position of leadership in a general surgical clinic who has not had a primary broad surgical training which implies a certain working familiarity with all the recognized surgical specialists. But should he in course of time become so engrossed in a particular field, whether new or old, that it occupies his attention to the exclusion of other things, it is about time the institution should begin to cast about for his successor.

However this may be, it has come to pass that within the greater orbit of the surgical department, a special group of workers has come to revolve around their own detached and independent axis, their center of activity being the small and over-crowded laboratory whose affairs in later years Drs. Bailey, Buckley and Eisenhardt have successively supervised. Here a quasi-school of neurosurgery, more particularly as it relates to the study of intracranial tumors, has from a nebulous beginning come to take form. It has been wholly independent of the medical school and been tolerated by the hospital authorities out of their willingness to let me pursue my own problems as I wished, provided the work could be independently financed. In this case it has proved to be costly, but there was no difficulty about this, thanks to our kind of full-time service, for as the work has grown ample funds have been put at our disposal by grateful patients or their relatives for the mere asking.

So while the surgical staff as a whole has been engaged in training men to be general surgeons, Dr. Quinby and I—he with far more restricted opportunities, I may add—have been training men for careers in our respec-

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tive specialties. And I naturally look with particular pride on the fact that there are scattered here in Boston (Horrax, Cobb, Viets, Putnam and Ingraham), in New Haven (Harvey, Fulton and German), in New York (Davidoff, Scarff, Deery and Kaplan), in Philadelphia (Grant and Groff), in Baltimore (Bagley), in Louisville (Spurling), in Rochester, N. Y. (Van Wagenen), in Cleveland (Locke and Bell), in Detroit (Schreiber), in Chicago (Bailey, Davis and Oldberg), in Omaha (Keegan), in San Francisco (Towne and Fleming), in Los Angeles (Rand and Courville), in Portland (McLean), in Toronto (McKenzie), in Montreal (Penfield), in Edinburgh (Dott and Henderson), in Leeds (Armitage), in London (Symonds, Ross and Cairns), in Brussels (Martin and Bremer), in Louvain (Morelle), in Antwerp (Van Dessel), in Amsterdam (Oljenick), in Hamburg (Schaltenbrand), in Berlin (List), in Vienna (Schönbauer and Schlesinger), in Bucharest (Bagdasar), in Bern (De Coppet), in Geneva (Ody) and in Paris (Petit-Dutaillis) a number of men who have gained at least a small part of their neurological experience here. They form a band of sympathetic persons who share in common an interest in furthering the development of the surgical aspects of neurology, even though not all of them actually choose to put their hands to it. In all this Dr. Horrax has for years been my chief mainstay, and of late years during his vacation period, by a happy arrangement, former assistant residents (Mr. Dott in 1929, Mr. Cairns in 1930 and Drs. Van Wagenen and Oldberg this present summer) have volunteered to return and take his place. By relaying operations for me they have helped to conserve my time and energies.

So here has been a minor training school within a larger one. And if any particular contributions from

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it may be singled out as deserving of special mention, they are probably the early studies by Drs. Weed and Wegefarth of cerebrospinal fluid, Drs. Bailey and Bremer's investigations of hypothalamic function, Dr. Bailey's classification of the gliomas, Dr. Eisenhardt's subsequent development of the supravital method whereby they may be promptly differentiated, and the many contributions which Drs. Goetsch, Putnam, Dott, Davidoff and others have from time to time made in furthering our knowledge of disorders of the pituitary body.

Naturally enough, our departmental list of publications becomes increasingly topheavy with neurosurgical papers, for time to write is found by a larger number of persons engaged in this work compared with those on the general service who are continuously occupied by their heavy responsibilities in wards and operating room. It has been our custom heretofore strictly to limit the publications for each year to the papers actually printed, but in the subjoined list, for the purpose so far as possible of clearing my slate, not only are the papers for 1931 included but also some of those in hand for 1932 whether already printed or still in press.

PUBLICATIONS FOR 1931-32

ARMITAGE, GEORGE. Osteoma of the frontal sinus: with particular reference to its intracranial complications, and with the report of a case. Brit. J. Surg., April, 1931, 18, 565-580.

ARMITAGE, GEORGE and MEAGHER, RICHARD H. Gliomas of the corpus callosum. Arch. f. d. ges. Neurol. & Psychiat. (In press.)

BOYES, JOSEPH H. Dover's powder and Robinson Crusoe. N. England J. Med., February 26, 1931, 204, 440-443.

CHEEVER, DAVID. Warren's Handbook of Anatomy (Book review). N. England J. Med., April 30, 1931, 204, 952.

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- CHEEVER, DAVID. A biography of George W. Gay, M.D. A surgeon of Boston 1842-1931. N. England J. Med., June 18, 1931, 204, 1323-1327.
- The choice of operation in carcinoma of the colon. Ann. Surg., October, 1931, 94, 705-716.
- Doctor, medical society, layman and state. N. England J. Med., May 19, 1932, 206, 1032-1038.
- CUSHING, HARVEY. Experiences with the cerebellar astrocytomas. A critical review of seventy-six cases. Surg., Gynec. & Obst., February, 1931, 52, 129-204.
- I. The reaction to posterior pituitary extract (pituitrin) when introduced into the cerebral ventricles. II. The similarity in the response to posterior lobe extract (pituitrin) and to pilocarpine when injected into the cerebral ventricles. III. The action of atropine in counteracting the effects of pituitrin and of pilocarpine injected into the cerebral ventricles. Proc. Nat. Acad. Sc., April, 1931, 17, 163-180.
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- George Strong Derby 1875-1931. N. England J. Med., December 24, 1931, 205, 1262-1264.
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- Peptic ulcers and the interbrain. Surg., Gynec. & Obst., July, 1932, 55, 1-34.
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- ECKELS, JOHN C. Experimental transplantation of ureters into the bowel. N. England J. Med., November 26, 1931, 205, 1045-1047.
- EISENHARDT, LOUISE. Diagnosis of intracranial tumors by supravital technique. Further studies. Arch. Neurol. & Psychiat. (In press.)
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SURGEONS-IN-CHIEF, *pro tempore*. (Professors Putti and Heuer.) From the early days we have enjoyed the closest cooperation with the orthopoedic and surgical departments of the neighboring hospital for children. With the late Robert W. Lovett, the plan of having a weekly exchange visit with the combined staffs of the two hospitals was put into effect. The primary idea on his part was that it would broaden the experience of his group could they thus keep in touch with the problems of general surgery. It was obvious that we would be the chief gainers for at the Children's Hospital we would see surgical maladies of a type that rarely come under our observation, and at the Brigham could count upon receiving valuable suggestions and criticisms of our peculiar way of treating adult orthopoedic cases. Since Dr. Lovett's death, his successors, Dr. R. B. Osgood and Dr. Frank Ober, have kept on with the program and the attendance at these early Tuesday morning ward visits and demonstrations, alternating between the two hospitals, bears witness to the continued enjoyment and profit gained from them.

In recognition of this long enduring inter-hospital alliance, it appeared to be a particularly appropriate gesture should an orthopoedist be invited to act as my *locum tenens*. There could only be one choice, namely, Professor Vittorio Putti, and he was given an official

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leave of absence by the University of Bologna for the express purpose. As all orthopoedists know, Professor Putti is a bachelor who lives and conducts his celebrated clinic in a most picturesque XVIth century Benedictine Monastery known as S. Michele in Bosco situated on an isolated hill overlooking the ancient city of Bologna where the university idea had its birth. That he was willing to drop his important work and after a long voyage exchange his comfortable abode in its quiet sylvan retreat for a cot in the Resident's quarters facing the noisiest street corner in Boston was a tribute not only to the Brigham but to the Children's Hospital as well. For his skill as a surgeon and contributions to his special subject, Professor Putti has a world-wide reputation. Beside this, he is a student of medical history, a bibliophile, and a scholar whose charming personality will not easily be forgotten by the young men who were privileged to come in contact with him as a co-worker.

For a week in the month of July, Dr. George J. Heuer, recently appointed Professor of Surgery at the Cornell Medical School in New York, and who will be Surgeon-in-Chief of the newly erected Medical Center there, was our second appointee as Surgeon-in-Chief, we having been entitled to have two representatives owing to my neglect in appointing someone during the past year.

After Dr. Heuer's graduation from the Johns Hopkins Medical School in 1908, he served as my personal clinical assistant for the ensuing year, this being the first appointment of the kind I was permitted to make. His subsequent career at the Johns Hopkins and at the University of Cincinnati, now capped by his appointment to Cornell, has been followed with the greatest pride, and my suggestion that he do me the honor of acting as my last official substitute here at the Brigham he gener-

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ously and promptly accepted. From the students' standpoint, it is regrettable that his all-too-brief term of service should have come in mid-summer for he not only is an inspiring teacher and a clinician who instills the utmost confidence in his patients, but his skill, resourcefulness and composure at the operating table put him in a class by himself as an ace of operating surgeons. What his stay among them meant to the house staff, some of whom are soon to join him in his new hospital in New York, can be readily appreciated.

CHANGES IN PERSONNEL.¹ *Resident Surgeons.* On May 1, 1931, Dr. A. J. McLean, after six years' contact with the Brigham Hospital, terminated his term as Resident surgeon and took up his residence in Portland, where he promptly was appointed Instructor in Surgery and Neurosurgery in the University of Oregon. Dr. McLean is a man who inherited from his Scottish ancestors a superhuman capacity for work combined with an intellectual receptivity discouraging to those of less active mind and body. Coming here from the Johns Hopkins in July, 1925, he passed through all of our grades from house officer to resident, meanwhile holding the Arthur Tracy Cabot Fellowship for a year and the George Gorham Peters Travelling Fellowship. If native ability and long training indicate anything, a brilliant career in surgery lies ahead of him. He was succeeded in the residency by Dr. Richard H. Meagher who likewise had moved up to this coveted position through our successive ranks and from his record highly deserved it. Two months later, he was obliged temporarily to withdraw and Dr. Frank N. Glenn, one of our recent Assistant Residents who shortly before had gone to California to enter practice, was prevailed upon

¹ Note here is made of changes in positions held by the surgical staff from January 1, 1931, to the date of writing, July 1, 1932.

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to return and act as interim Resident for three months, from July to September. He performed his duties so acceptably he was rewarded by the George Gorham Peters Travelling Fellowship, and having passed the winter in Edinburgh with Professor Wilkie, one of our former Surgeons-in-Chief, *pro tempore*, is now at this writing on his way around the world.

Assistant Resident Surgeons. Dr. Glenn's service in this capacity, as noted above, terminated April 1, 1931, and he was succeeded by Dr. Walter W. Boyd, a former house officer who had just completed a service at the Lying-In Hospital. Dr. Boyd resigned February 1, 1932 and went abroad to make a semi-official visit of the principal obstetrical hospitals in Europe with the expectation of devoting himself to this field of work. When Dr. Meagher became Resident on May 1, 1931, he was succeeded by Dr. Kenneth W. Thompson, a former house officer, and at the same time Dr. Bronson Ray was likewise advanced to be assistant resident, filling the post vacated by Dr. Glenn.

Meanwhile, on March 15, 1931, Mr. W. R. Henderson completed his term as assistant resident in neurosurgery and returned to Edinburgh to become Mr. Dott's assistant at the Royal Infirmary. His place was taken by Dr. Thomas I. Hoen who in September, 1931 proceeded to Montreal in order to continue his neurosurgical training there under Dr. Penfield. Dr. William deG. Mahoney, the next in line, at the expiration of his term as house officer had come on duty March 15, 1931 and served continuously for a year when he went abroad on a Brigham Surgical Fellowship to work with Professor Foerster in Breslau. There followed in these overlapping neurosurgical positions Dr. Bronson Ray who was titularly transferred to neurosurgery from his assistant residential post in general surgery in October, 1931.

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He in turn is being supplemented by Dr. R. U. Light who on completion of his house officership on November 1, 1930, after relieving his air mindedness by a flight over Central America, served as A. T. Cabot Fellow until April, 1932 when he resumed his work in the clinic as Dr. Ray's second in neurosurgery.

Of Dr. Quinby's Assistant Residents in Urology, Dr. R. P. Middleton withdrew July 1, 1931 to enter practice with his father in Salt Lake City, and Dr. John C. Eckels left in September, 1931 for a period of work abroad on a Moseley Travelling Fellowship. He was succeeded by Dr. James B. Herring, a medical graduate of the University of Pennsylvania who prior to this appointment had been acting as a voluntary graduate assistant.

House Officer Positions. The successive paired members of our junior staff who have graduated since January, 1931 have changed their status as follows: The graduates of February, 1931: Dr. F. A. Fender was appointed neurosurgical resident at the Boston City Hospital, and Dr. Mahoney who has been already accounted for expects to join the group of several Brigham representatives in the newly opened Cornell Medical Center next autumn. The graduates of May, 1931: Drs. Bronson Ray and K. W. Thompson, have, as related, been advanced to higher rank, the former also expecting to go to Cornell the coming September while the latter will remain as assistant resident under Dr. Cutler. The graduates in August, 1931: Dr. John H. Lawrence was appointed Assistant Resident in Medicine at the Strong Memorial Hospital in Rochester, and Dr. Donald E. Dial Assistant Resident in Surgery at the New Haven Hospital. The graduates of November, 1931: Dr. J. H. Boyes was appointed Resident in Surgery at the Stanford University Hospital in San Fran-

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cisco, and Dr. L. H. Strayer became Junior Fellow in Surgery at the Presbyterian Hospital in New York. The graduates of February, 1932: Drs. C. C. Bishop and L. G. Kendall are now serving as Assistant Resident Surgeons on the general service and expect a transfer to Cornell this coming September. The graduates of May, 1932: Dr. C. M. Gray is Assistant Resident in Medicine at the Kansas City Hospital while Dr. A. N. Berry is taking a house officership at the Boston Lying-In Hospital. The graduates of August, 1932: Dr. John W. Kane plans to go to Rochester as Assistant Resident in Neurosurgery under Dr. Van Wagenen, and Dr. Stanley Bysshe will take an interneship at the Sloane Hospital for Women.

Thus by stretching the proper scope of this report which should concern itself with 1931 alone, the movements of our graduating house officers are accounted for up to the time when I shall turn the responsibility of providing for them over to my successor. Those who remain as the residual of a former régime can be assured that their new Chief, a Brigham graduate himself, will have as great an interest in their future careers as if they had been his personal appointees. It is particularly gratifying to me that a group of our former house officers, Glenn, Mahoney, Ray, Bishop and Kendall, with Richard Meagher as their senior are to represent us at Cornell where they will come under Dr. Heuer's stimulating leadership.

Voluntary Assistants and Fellows. During 1931 and 1932, the following graduates have been temporarily attached more or less intimately to the activities of the surgical clinic, most of them because of their special interest in neurology. Dr. Alexander Zeitlin, an assistant professor of the North Caucasian University of Rostov-on-Don, who came highly recommended as an

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aspirant for neurosurgical experience, had his sojourn cut short by orders for his return from the Soviet Government. Dr. Carl List, a highly trained neurologist and assistant of Professor Schuster of Berlin served most acceptably and to our great advantage from February, 1931 for the ensuing twelve months. Likewise for a year following May, 1931, we profited from the presence of Dr. Benno Schlesinger, a promising surgeon particularly well versed in neuro-anatomy who was sent here from the University of Vienna on a Rockefeller Fellowship. Meanwhile, Mr. W. R. Henderson of Edinburgh and Dr. François Ody of Geneva who also were Rockefeller fellows had in July, 1931 and September, 1931 respectively concluded their terms of service. Dr. Abraham Kaplan, a Harvard medical graduate of 1927 who had subsequently served as assistant to Dr. Ernest Sachs at the Barnes Hospital for a year and then successively as fellow in neurosurgery and resident neurologist under Dr. Foster Kennedy at the Bellevue Hospital in New York, proved a most acceptable co-worker for the year following July, 1931, as did likewise, Dr. Robert A. Groff, a graduate of the University of Pennsylvania who on the recommendation of Dr. Francis Grant joined us October, 1931 and remained for the following nine months. Briefer sojourns were made by the following: Dr. Johannes Rives sponsored by Professor Puusepp of the University of Tartu, Estonia, serving on a Rockefeller Fellowship; Dr. A. Lehner of the University of St. Gallen, Switzerland; Dr. Ferdinand Verbeek of the University of Groningen, all of whom were primarily interested in neurosurgery. At the present time serving as voluntary assistants are Dr. D. Vasiliu of the University of Bucharest; Dr. A. R. D. Pattison, assistant to Professor Grey Turner of Newcastle-upon-Tyne, and holder of the Rutherford Mori-

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son Travelling Scholarship of the University of Durham and Dr. Arist A. Stender, Assistant in the Nerve Clinic of the University of Hamburg, sponsored by Dr. George Schaltenbrand and here on a Rockefeller Fellowship.

It has been gratifying that these men should feel that their time in the clinic is profitably passed even though their number makes it impossible at times to give them the individual attention they deserve and some are obliged to content themselves by picking up what they can from observation of rather than actual participation in the work. So far as possible, they have been given problems to occupy their spare time, but even this is not always feasible.

Surgical Tabulations. Buried in preceding reports may be found various lucubrations concerning the annual publication of departmental statistics. In retrospect there is perhaps more to be said of their futility than in their behalf. Both services, medical and surgical, began bravely at the outset not only to publish classified tables of the disease and injuries that had come under treatment, but the surgeons even went so far as to give a brief synopsis of every case in which an operation had been followed by a fatality. This was finally given up because of the labor it entailed and its essential uselessness unless other hospitals adopted a similar system which was more than could be expected. Dr. Christian in course of time ceased to include in his report the customary tabulation of medical diseases and now, after all these years, in the present report for reasons primarily of economy, the corresponding surgical table will be omitted with due apologies to Miss Robbins and her faithful cohorts of the record room who have gone to the trouble of preparing it with their usual detail and accuracy. So it comes about that the

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only check on the year's work will be found in the compressed figures of the accompanying table. It shows the smallest number of patients discharged since 1922 and thereby reflects the curtailing effect on our work of these present hard times.

YEAR	Total Discharges	Deaths	General mortality %	Diagnoses	Excess % of Diagnoses	Patients operated upon	Case % operated upon	Operations recorded	Post-operative deaths	Case mortality %	Operative mortality %
1913	690	35	5.00	690	0	477	69.1	693	29	6.0	4.2
1914	1474	83	5.63	1474	0	992	67.3	1361	61	6.1	4.5
1915	1869	89	4.76	2366	26.5	1328	71.2	1526	72	5.4	4.7
1916	2014	93	4.61	2348	16.5	1422	70.6	1632	68	4.8	4.1
1917	2021	74	3.66	2533	25.3	1457	72.0	1639	54	3.7	3.2
1918	1856	71	3.82	2315	24.7	1304	70.2	1474	61	4.7	4.1
1919	2123	102	4.80	2659	25.2	1411	66.4	1563	79	5.6	5.1
1920	2090	91	4.35	2604	24.5	1399	66.8	1602	69	4.9	4.3
1921	2195	107	4.87	2640	20.2	1405	64.0	1591	86	6.1	5.3
1922	2274	110	4.83	2692	18.3	1517	67.1	1552	71	4.7	4.5
1923	2397	135	5.62	3084	28.2	1646	68.6	1713	81	4.9	4.7
1924	2508	144	5.74	3462	38.0	1783	71.1	1843	75	4.2	4.1
1925	2578	134	5.19	3629	40.7	1667	64.6	1762	72	4.3	4.1
1926	2415	143	5.92	3565	32.2	1663	68.8	1789	87	5.2	4.8
1927	2474	135	5.95	3715	31.5	1735	69.9	1858	79	4.5	4.3
1928	2577	135	5.24	3737	45.0	1750	67.8	1930	89	4.5	4.2
1929	2574	136	5.28	3822	45.5	1708	66.3	1874	80	4.7	4.3
1930	2388	109	4.14	3763	55.2	1714	71.7	1892	71	4.1	3.2
1931	2375	125	5.68	4007	57.9	1670	70.2	1849	68	4.1	3.7

It has been said that no one ever consciously does any particular thing for the last time without a certain feeling of sadness—even a chore like the annual preparation of a hospital report. So when for the last time I shall close the door on these my cherished and familiar quarters where, surrounded by pictures of my friends to hearten me, so much has gone on these past twenty years, I foresee that it will be a difficult moment both for me and for those loyal persons in my employ who

PETER BENT BRIGHAM HOSPITAL

at the same time lose their jobs. We will have reason to envy the faithful hospital servants, chiefs of their departments from the early days as I have been of mine, Miss Packard the housekeeper and her assistant Katherine Kelley, Harry Coman the apothecary, John Aitken the mechanician who like a proper Scot is master of all trades and Jack of none, Miss Cheney of the hard-sledding Social Service department, Miss Crawford the chief clerk untouchable in her cage, William Morgan who must have laid on a thousand miles of our hospital grey paint, Christine McDonald who'll be making the best ice cream in Kingdom come. There is also Adolph Watzka who has long made up for his somewhat shorter service by choosing to "live in." I roughly calculate that during these past fifteen years he has lifted from stretcher to operating table and back five thousand tons of humanity, his other multifarious duties being considerably more time-consuming and onerous. Such permanency of service shows what a happy family we have been with all the gives and takes of the day's work year in, year out. Fortunate it is that for them there's no age limitation, and I trust they may go on forever.

To the Superintendent, to the Principal of the Nursing School, and to my colleagues in Medicine and Pathology and Roentgenology for their unfailing co-operation at all times I wish to express my heart-felt gratitude, while to my loyal juniors on the surgical staff who have stood by me through thick and thin I owe if possible an even greater debt. And to my, as well as their, friend and one-time pupil shortly to succeed me, I can wish nothing better than that the position he is certain to adorn will at the same time bring him as great happiness and satisfaction as it has brought to me.

HARVEY CUSHING,

AUGUST 1, 1932.

Surgeon-in-Chief.

REPORT OF THE SURGEON-IN-CHIEF

Summary of Statistics

JANUARY 1, 1931 TO JANUARY 1, 1932

Total number of surgical admissions in 1931	2,345
Total number of cases remaining in wards, Jan. 1, 1931	120
	—
	2,465
Total number of surgical cases discharged or transferred	2,250
Total number of deaths	125
(Post-operative 68—Non-operative 57—total 125)	
	—
	2,375
Total number of cases remaining in wards, Jan. 1, 1932	90
	—
	2,465
Total number of operations	1,849
Incidental operations	147
	—
	1,996

Report of the Physician-in-Chief

ENDING OF SERVICE OF DR. CUSHING. This annual report is the last one in which Dr. Cushing as Surgeon-in-Chief will include a report on the work of the surgical service, since during the next year his service will end by reason of limit of age. How fruitful that service has been is recorded in the successive annual reports of the Peter Bent Brigham Hospital and is testified to by the opinions of his colleagues and by honors bestowed upon him by universities and surgical and scientific associations the world over. Dr. Cushing ever has been a great influence on those colleagues and associates who have had the great good fortune to work with him in the Peter Bent Brigham Hospital during the twenty years that have elapsed since he took active charge as the first surgeon-in-chief of the Peter Bent Brigham Hospital. To us he has shown the methods of a scientific enquiring mind basing opinions on meticulously careful clinical observation and perfected surgical technique, applied to patients and controlled, when needed, by animal experimentation, and his influence has permeated all departments of the hospital. It has been my privilege, as Physician-in-Chief throughout all of his period of service at the Peter Bent Brigham Hospital, to have a very close association with Dr. Cushing and to be stimulated to better work by him. How fast the years have flown; how rich the experience; how greatly will his active presence be missed; to you, Dr. Cushing, I and my associates on the medical service of the Peter Bent Brigham Hospital are deeply indebted; regretfully we see your service as Surgeon-in-Chief end.

REPORT OF THE PHYSICIAN-IN-CHIEF

BITS OF P. B. B. H. HISTORY. In the previous annual report under this heading I commenced a record of events connected with the beginning of the Peter Bent Brigham Hospital. In that report I described the association of Francis W. Peabody with the hospital. In the inauguration of a new institution two things are very important to its subsequent success, the selection of the personnel and the organization under which they are to function. Something of the former was discussed last year; this year the latter will be described.

Now for twenty years the Peter Bent Brigham Hospital has been actively engaged in its daily work under a plan of organization which has gradually evolved from one submitted to the Trustees of the Peter Bent Brigham Hospital in December, 1911. It is of interest to see just how far the original plan has been adhered to and in what respects modifications have been made.

On October 23, 1911 a plan of organization for the staff of the Peter Bent Brigham Hospital was drawn up in the form of a letter directed to the President of the Trustees and submitted to Dr. Cushing for his criticisms and suggestions. His answer is as follows:

BALTIMORE, NOVEMBER 2, 1911.

Dear Henry:

I am returning the letter and am sorry to have kept it so long, but I have been in Cleveland and have been harrowed with an unusual lot of responsible work. I have made some minor changes, which I hope you can make out, as they are roughly penciled in, and have also added a postscript in regard to the necessity of getting hold of a reliable operating-room nurse and an anaesthetist at as early date as possible.

Ever yours,
H. C.

One question that was discussed at this time was the retiring age. Dr. Cushing writes as follows:

BALTIMORE, NOVEMBER 20, 1911.

Dear Henry:

Why not put the surgical age of retirement for the attending surgeon at sixty and the physician at sixty-three or sixty-five, as you think best?

PETER BENT BRIGHAM HOSPITAL

I have an idea that the surgeon's fingers are apt to get a little stiff and thus make him more or less incompetent before the physician's cerebral vessels do. However, as I told you, I would like to see the day when somebody would be appointed surgeon somewhere who had no hands, for the operative part is the least of the work. Then, of course, many of us may get, vascularly speaking, a little inelastic well on this side of sixty, or may remain in this respect as youthful at seventy as are others at fifty. This is all a lottery of inheritance and habits, and I shall be very glad, for one, to have it legislated to stop active work at sixty.

Ever yours,
H. C.

Another question under discussion concerned post-mortem examination. On this Dr. Cushing writes.

BALTIMORE, NOVEMBER 29, 1911.

Dear Henry:

I have asked a number of people about the autopsy matter, and the opinions are most variable. Of course they all think, just as we do, that theoretically it is a good plan, but the difficulties are many. Most of them think it would mean the withdrawal from the hospital at the last moment of patients who are critically ill by those who object to a post-mortem investigation. I was under the impression for a while that they had such a rule at the Rockefeller Hospital, but I have learned that they do not. I fear that it is a thing that must come slowly with the general education of the public, and not a thing we can force down their throats. However, there is no harm in trying.

Ever yours,
H. C.

Finally the following letter was transmitted.

BOSTON, MASS., DECEMBER 7, 1911.

MR. ALEXANDER COCHRANE,
President Board of Trustees,
Peter Bent Brigham Hospital.

Dear Sir:

In our judgment it seems that it is time now to proceed to the further organization of the Staff of the Peter Bent Brigham Hospital, in order that the services of some of the men whom we believe desirable for that Staff may be secured. Delay in this matter might be the cause of our losing such men owing to their acceptance of positions elsewhere, not knowing of the possibilities in the Peter Bent Brigham Hospital.

Before proceeding to a consideration of individuals for positions, it seems to us desirable that a general plan of Staff organization be determined upon. So far as we know, the only steps so far taken to that end are the appointment of the Physician-in-Chief, the Surgeon-in-Chief, and the Superintendent, and the expression in the letter to Dr. Cushing and myself that we should have the privilege of nominating to the Board of Trustees our various assistants. In regard to the general organization of the Hospital Staff, we would advise

REPORT OF THE PHYSICIAN-IN-CHIEF

GENERAL STAFF ORGANIZATION

Staff (1) That the Staff of the Hospital consist of the Physician-in-Chief, the Surgeon-in-Chief, and their respective assistants, with the exception of the House-officers; the Consulting Pathologist, and the Consulting Physiologist, and the Consulting Chemist, and their assistants; the Superintendent, and such others as may subsequently be added on the recommendation of the Executive Committee of the Staff to the Trustees.

Age Retirement. (2) That all Staff appointments shall cease automatically when the encumbent reaches the age of sixty-three years.

Executive Committee (3) That there shall be an Executive Committee of the Staff composed of the Physician-in-Chief, the Surgeon-in-Chief, and the Superintendent.

(4) That each member of the Executive Committee shall have the privilege on request of appearing at meetings of the Trustees to present matters immediately concerned with his Department.

Nominations (5) That the Physician-in-Chief, the Surgeon-in-Chief, and the Superintendent each shall have the privilege of nominating to the Trustees his assistants, and at any time recommending their dismissal for adequate cause.

(6) That the other members of Staff shall be nominated to the Trustees by the Executive Committee of the Staff.

Medical and Surgical Staff We submit in connection with the above, the enclosed schedule of Staff positions (see pages 118 and 119), which will give some idea of the probable number of men needed when all of the beds of the Hospital are occupied, and when the general work of the Hospital is fully under way. Furthermore, we have appended to this schedule salaries suggested for these various members of the Staff. It is to be realized in this connection that conditions in medicine and in hospitals are very rapidly changing, and that new opportunities with increasing salaries are being offered to young men engaged in such work. Consequently we regard this schedule of Staff positions and of salaries as a tentative one, expressing what in our judgment today are likely to be the needs of the Hospital during its first few years of existence, and what it will be necessary to pay to secure these services. Doubtless later increases will have to be made in many of these.

Consulting Pathologist, Physiologist, Chemist We believe that at the present time, the best arrangement for the work of the Hospital will be to throw the burden of it on the resident staff, the Physician-in-Chief, and the Surgeon-in-Chief, with the aid of the non-resident assistants appearing in the schedule immediately preceding Physician-in-Chief and Surgeon-in-Chief; that in addition to these there should be a Consulting Pathologist, a Consulting Physiologist, and a Consulting Chemist, with no regularly fixed duties, to be called upon freely for advice, and to have complete freedom of visiting and making suggestions in the aid of the work of all Departments of the Hospital. Furthermore, it is believed that no salaries should be paid to these men until such time as it is evident that such service is making a considerable demand on their time.

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Consultants in specialties It is furthermore believed that at an early day it will be necessary to secure the services of other consultants covering certain of the specialties, namely, neurology, otology, ophthalmology, dermatology and laryngology. As far as the wards of the Hospital are concerned, with the beds divided for medical and surgical patients, relatively little demand will be made upon the services of such consultants for the specialties, and consequently they can be secured either without salary, or with small remuneration. In connection with the Out-patient Department probably in a short time larger demands will be made upon men engaged in these special lines of work, and other arrangements will then have to be made.

Out-patient Department In the beginning the Out-patient Department will undoubtedly be small, and it is planned to organize this at the outset for a relatively small number of patients, and to provide ample space for growth. It is believed this Out-patient Department should be open continuously for the treatment of patients, and at first should be operated by the medical and surgical staff as shown in the schedule referred to above. With growth it may be necessary to organize separate departments covering the special lines of work, and then a considerable staff of men for these will be needed. It seems wise to us to postpone such organization until we can determine from the method of development of the Out-patient Department under the plan of having a continuous Out-patient Service what are the immediate and future requirements for such special departments. These requirements naturally will be influenced by the possible development about the Peter Bent Brigham Hospital of various special clinics, to which ambulatory patients advantageously can be referred. Should the Trustees wish to have an estimate of the probable cost of such subsequent developments, we think a tentative figure of \$100.00 per month for each man on duty daily in such an Out-patient Department might be given, and that for some time \$1,200.00 per Department, or \$6,000.00, if there are five of these Departments, might be considered sufficient.

Roentgenologist In regard to a Roentgenologist we have put down no salary figure. This Department will probably involve the employment of one or more technical assistants not graduates in medicine, with the probable supervision of a resident or visiting graduate in medicine. The exact organization must depend in large part upon the training and ability of the men whom we can secure to do the technical work. Some idea of the probable cost of such a department, which should be established as early as possible, may be obtained from the figures which we submit of the cost of this department during the past year at two large hospitals, the Boston City Hospital, \$5,581.29, and the Massachusetts General Hospital, \$4,663.58, which figures include salaries and the cost of supplies, but not cost of power, light and caretaking of building. From this cost may be subtracted such fees as are paid by patients for Roentgen ray examinations.

Photographer and artist In similar way no salary has been named for a photographer and an artist. Both will be needed in the work of the Hospital. The photographic work possibly may be combined with that of the roentgenologist. The personnel of this de-

REPORT OF THE PHYSICIAN-IN-CHIEF

partment will be a determining factor; no definite figure can be set for his salary nor for the cost of his materials. The call for work by an artist is apt to be a varying quantity, and so difficult of estimate. Arrangements may be made for utilizing a portion of the time of artists employed in the Harvard Medical School or other adjacent institutions. Under these circumstances a probable cost cannot be stated until organization has progressed much further.

Autopsies One other matter we deem of the very greatest importance for the future success of the Peter Bent Brigham Hospital, and we would ask the Trustees of the Hospital to take early action upon it. This matter has reference to the securing of autopsies on patients dying in the Hospital. We believe that the best interests of the development of the scientific work and improvement in our methods of treating patients can only be obtained by the careful post-mortem study of fatal cases. To this end, we would ask the Trustees to adopt a rule that on admission to the general wards of the Hospital each patient, and his nearest relative, as provided by the law governing such matters, shall be required to sign an agreement providing that, in case of his or her death, a post-mortem examination of the body shall be made whenever in the judgment of the Staff such an examination is desirable. We feel that this matter cannot be too strongly insisted upon. Such a rule is now established for all of the Government Hospitals (Marine, etc.) in this country and has long been in existence in all the great German clinics.

Dr. Cushing and myself will separately submit a schedule of what we believe needed in the way of members of the Staff at the time of the actual opening of the Hospital.

We would ask that the Board of Trustees indicate to us now the date on which they will require our services, it being understood that on that date our salary payments will begin, in order that we may make the necessary arrangements of our work to meet these engagements with you. We ask that this date be named thus far in advance for the reason that both of us are holding positions and are engaged in work, a certain part of which will need to be discontinued before we begin our service at the Brigham Hospital. It is desirable that ample notice be given to the institutions with which we are at present connected of the time at which our resignations are to take effect.

Very truly yours,

HENRY A. CHRISTIAN,
HARVEY CUSHING.

P.S.: Dr. Cushing wishes to add that in view of the difficulties of training a new operative staff for responsible surgical work, it will be necessary for him at as early a date as possible, to select and educate for her special duties an operating-room head nurse, as well as an anaesthetist. He feels that both of these women should have at least six months of special training, and should visit other large clinics before undertaking their work at the Brigham Hospital; and that their salaries—or such proportion of their future salaries as may seem reasonable—should begin as soon as the proper individuals for these tasks can be selected, and an agreement made with them for a certain term of service after the opening of the Hospital.

SCHEDULE OF STAFF OF PETER BENT BRIGHAM HOSPITAL
 Submitted to Trustees, December 7, 1911

	Salary	Total
2 Subjunior Medical House-officers*	Room and board 0
2 Junior Medical House-officers*	Room and board 0
2 Senior Medical House-officers*	Room and board 0
2 Resident Physicians to Out-patient Dept.	Room and board 0
3 Assistant Resident Physicians	\$ 500 x 3 = \$1,500
1 Resident Physician	1,000 = 1,000
Assistant Visiting Physicians	100 per month when on duty = 2,400
		2,000 = 2,000
		5,000 = 5,000
		600 x 2 = 1,200
		600 = 600
		— \$13,700
1 Visiting Physician	
1 Physician-in-Chief	
2 Stenographers	Lunches
1 Technician for laboratory	Lunches
(Medical and Surgical)	
2 Subjunior Medical House-officers*	Room and board 0
2 Junior Medical House-officers*	Room and board 0
2 Senior Medical House-officers*	Room and board 0
2 Resident Surgeons to Out-patient Dept.	Room and board 0

« 1 »

* Four months' service in each grade with promotion to next grade if work satisfactory.

REPORT OF THE PHYSICIAN-IN-CHIEF

3 Assistant Resident Surgeons	Room and board	\$ 500 x 3 = \$1,500
1 Resident Surgeon	Room and board	1,000 = 1,000
Assistant Visiting Surgeons	100 per month when	100 per month when
1 Visiting Surgeon	on duty	2,400
1 Surgeon-in-Chief	2,000	= 2,000
2 Stenographers	5,000	= 5,000
	600 x 2 = 1,200	
	Lunches	—
1 Resident Pathologist	Room and board (max.)	13,100
1 Laboratory Diener for path. laboratory	2,400	= \$2,400
1 Asst. Lab. Diener for path. laboratory	900	= 900
	480	= 480
	3,780	—
Consulting Pathologist		
Consulting Physiologist		0
Consulting Chemist		0
Roentgenologist		0
Photographer; Artist		0
Med. and Surg. Laboratory supplies, apparatus, etc.		0
Available annually for supplies, apparatus, etc.		0
	\$3,000	—
		\$3,000

PETER BENT BRIGHAM HOSPITAL

This letter was acknowledged as follows by Mr. Cochrane, President of the Trustees:

BOSTON, MASS., JAN. 16, 1912.

Dear Dr. Christian,

Your letter of January 14 was duly received.

The Trustees of the Peter Bent Brigham Hospital at a meeting held yesterday acted favorably on the recommendations made in the joint letter of yourself and Dr. Cushing of Dec. 7th, your letter of Dec. 7th, and Dr. Cushing's letter of Jan. 10th.

Yours very truly,

ALEXANDER COCHRANE.

When the hospital was completed and all the wards open for patients, most of this plan was in effect except that the terms, visiting physician and surgeon, were changed to physician and surgeon and on the surgical side this post was divided to give two surgeons. Salaried assistant visiting physicians and surgeons have never been appointed; the work contemplated for them is done by associates in medicine and surgery receiving no remuneration for their services. Shortly the title of the consulting pathologist was changed to pathologist and a salary provided. On further consideration it was deemed inadvisable to carry out the recommendation made about autopsies, and we have proceeded under the plan of seeking permission in each case for a post-mortem examination. As yet no hospital photographer or artist has been provided. In the intervening years the resident staff has been enlarged to twelve house officers, five assistant residents and a resident; two pathological house officers, a roentgenological house officer and assistant resident in roentgenology and a dental house officer have been added; the visiting staff has had added two physicians, a genito-urinary surgeon, a consulting dental surgeon and a group of senior associates, associates and junior associates in medicine and surgery. No provision, as suggested in this letter of organization, for theulti-

REPORT OF THE PHYSICIAN-IN-CHIEF

mate development of special departments in the Out-Door Department under the charge of men on salary has ever been made. In the years since the hospital opened the expenditure for the Roentgen-ray department has increased greatly but receipts from patients fully cover this expenditure.

This original plan for organization of the medical and surgical staff, when it was fully developed including special departments in the Out-Door Department, called for an annual budget for the salary of the professional staff amounting to \$29,800, or without the special departments \$23,800. Twenty years have passed since these recommendations were acted upon favorably by the Trustees; in 1931 the actual budget from the hospital for the medical and surgical staff was \$24,931.05. It is noteworthy that in this twenty-year period no one of these professional salaries has received any increase, and though individuals have been added to take care of the increasing work of the hospital, the total budget is essentially that advised twenty years ago for the same professional service to the hospital and is nearly \$6,000 less than what was then considered a reasonable development of the medical and surgical work if special departments in the Out-Door Department were developed. In this annual report Dr. O'Hare comments on the lack of special consultants in the Out-Door Department as one of its main defects. This failure to increase the budget for the medical and surgical staff since the beginning of the hospital must be regarded as a failure to keep pace with what has been done in all other similar hospitals in the same period of time, so far as I know.

THE USE OF DIGITALIS AT THE P. B. B. H. In the May, 1930, Bulletin of the American Heart Association there appears the following:

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After careful consideration, the American Heart Association recommends the following three resolutions:

1. That tablets or capsules of powdered digitalis leaves be dispensed in all cases where digitalis is indicated, except in emergencies.
2. That such digitalis preparation be standardized by a recognized method of biological assay, such as the cat or frog, for biological potency, but that efforts be made to secure uniformity of activity, so far as possible, by adhering to one of these methods of standardization.
3. That the digitalis be further standardized for its absorbability and efficacy by administration to selected patients suffering with auricular fibrillation.

In connection with this it is of interest to see how the early patients with heart disease were treated at the Peter Bent Brigham Hospital. The second patient to be admitted to the medical service was diagnosed chronic cardiac valvular disease, mitral insufficiency. Today this patient would be diagnosed chronic non-valvular heart disease or chronic myocarditis and hypertension. He was treated by bed rest, a light diet and was given 15 grams of magnesium sulphate every other morning and 0.09 grams of powdered digitalis leaves three times a day. The fourth patient to be admitted had chronic nephritis and hypertension. When it was thought she needed digitalis it was prescribed as powdered digitalis leaves 0.09 grams every four hours. The eighth patient was diagnosed chronic myocarditis and auricular fibrillation. Her digitalis was given in the same way. The eleventh patient, having chronic myocarditis, similarly received powdered digitalis leaves but in somewhat larger dosage, 0.12 grams every four hours. Thus nearly twenty years ago digitalis was being used at the Peter Bent Brigham Hospital in the form recommended in 1930 by the American Heart Association.

REPORT OF THE PHYSICIAN-IN-CHIEF

In the intervening years, except for occasional trials of other preparations of digitalis or when intravenous or intramuscular medication with digitalis seemed needed, we have adhered to the use of powdered digitalis leaves because the results seemed so satisfactory. In the earlier days digitalis leaves were purchased and tested on animals through the courtesy of the Laboratory of the Department of Pharmacology of the Harvard Medical School. From the powdered leaves pills were made using glucose solution as a vehicle. These were tested out on patients and then utilized in treating our cardiac patients both in the wards and out-door department. In other words the advice of the American Heart Association for the present time (1930) was being followed. Dosage has been varied from time to time with a resultant varying speed in obtaining digitalis effects, but no other change has been made. Now we purchase our pills of digitalis all made up; the results from them are entirely satisfactory. The manufacturer has tested the efficiency of the digitalis on animals. We check his results by clinical trial. It is a fact to the credit of American pharmaceutical houses that in this period of 20 years all digitalis sent us has been satisfactorily efficient. It is probable that the Peter Bent Brigham Hospital was among the first of American hospitals to use pills of powdered digitalis leaves as its accepted standard preparation of digitalis.

PHYSICIANS-IN-CHIEF, *Pro tempore*. One of the most pleasant experiences of each winter is the visitation of our Physicians-in-Chief, *pro tempore*. To these men, who come to live for a period in the hospital and conduct our medical work, we owe a real debt of gratitude. Little do they realize, I am sure, how much they give to us from the deep wells of their personality and their

PETER BENT BRIGHAM HOSPITAL

professional experience. In the calendar year 1931 it happens that we had two such visitors, since the *pro tempore* for 1930-31 chose the spring time and the one for 1931-32 the autumn.

In the spring of 1931 Dr. Lewellys F. Barker, of Baltimore, Professor of Medicine, *emeritus*, of the Johns Hopkins Medical School, brought to us the charm of a very unusual personality and the erudition of a scholar in medicine mingled with the skill of a highly trained clinician particularly interested in the psycho-neuriatic phases of disease. Dr. Barker served us happily as 17th Physician-in-Chief, *pro tempore*, and when he left, there went with him the affection and professional respect of a hospital staff that had learned from him much that was worth while. After he went, it was discovered that all available dictionaries had had an unwonted use.

In the autumn of 1931 Dr. Campbell P. Howard of Montreal, Clinical Professor of Medicine at McGill University and Visiting Physician at the Montreal General Hospital, served most acceptably as 18th Physician-in-Chief, *pro tempore*. After graduating in Medicine at McGill, he became in Baltimore an assistant of Osler, who had been a devoted pupil of his father, and then returned to Montreal before going to Iowa City as professor of medicine in the University of Iowa, whence later he returned to his native Montreal. With a medical heritage from a father, who was of very unusual attainment as a clinician and a much beloved physician, McGill, Johns Hopkins, Iowa and again McGill have developed in this, our most recent Physician-in-Chief, *pro tempore*, the type of teacher at his best at the bed side. Exemplifying careful clinical examination correlated with a rich store of experience gathered at other bed sides and from medical literature, from him we

REPORT OF THE PHYSICIAN-IN-CHIEF

learned to reappreciate the importance of what may be termed the English influence on our profession of medicine. A skilled bed-side teacher, Dr. Howard taught us that the careful study of many patients is, after all, the most important link in building up a thorough knowledge of internal medicine with which to teach students and to practice the healing art, provided that this link is strengthened by the results of many hours of reading in the medical library. Dr. Howard has left with us many pleasant memories of his sojourn.

CHANGES IN PERSONNEL. During 1931 Dr. Francis C. Hall resigned as Associate in Medicine to undertake special work on arthritis at the Boston City Hospital; Dr. Marshall N. Fulton resigned as Resident Physician completing a service on the resident staff which began March 1, 1926, when he became medical house officer, a service which had been notable for its efficiency and effectiveness in all respects; Dr. Fulton was appointed Junior Associate in Medicine at the Peter Bent Brigham Hospital and to succeed him Dr. Richard G. Hahn was promoted to the post of Resident Physician. In 1931 Dr. S. Marion Salley ended service as Assistant Resident Physician to undertake medical work at Chaco in Columbia, South America. To fill vacancies Dr. Paul H. Wosika, who comes to us from Passavant Memorial Hospital, Chicago, and Dr. W. K. Purks, who comes to us from Grady Hospital, Atlanta, Georgia, were appointed Assistant Resident Physicians.

As medical house officers the following men completed service and began on other work as follows: Dr. Paul C. Dozier to take a service at the Boston Psychopathic Hospital, Dr. Earl A. Harvey to begin practice in Denver, Colorado, Dr. Daniel Blain to take a neurological service at the Boston City Hospital, Dr.

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Edwin J. Doty to take a psychopathic service at the University of Michigan, Dr. James H. Marks to take a roentgenological service at the Peter Bent Brigham Hospital, Dr. Norman A. Pokorny to take a pediatric service at the Baby's Hospital in New York, Dr. Samuel A. Diack to begin practice in Portland, Oregon, Dr. Harry Buhrmester to become a member of the medical staff at the Boston Dispensary and Dr. Richard H. Young to take a neurological service at Bellevue Hospital, New York.

REPORT OF DR. O'HARE ON THE OUT-DOOR DEPARTMENT. As shown in the accompanying table the Medical O.D.D. has shown a falling off not merely in the total number of visits and total new patients but also in the total numbers coming to all the Special Clinics except the Luetic and the Blood Clinics. The explanation for the Luetic Clinic increase is somewhat uncertain although part of it is undoubtedly due to the fact that many more patients in the Surgical O.D.D. are having routine Wassermanns and those found positive are being directed to the Luetic Clinic for treatment. Furthermore many come to the Clinic now because of economic reasons. The increase in the Blood Clinic is due to the frequent visits of many of the pernicious anemia patients for treatment with the new intramuscular liver extract.

STATISTICS FOR MEDICAL O.D.D.

	1930	1931	
	Patients	Visits	Patients
Total	3,390	43,478	3,203
General Medical		21,180	39,977
Special	22,298		19,088
			20,889

This decrease in the total number of visits to the O.D.D. is without doubt a desirable thing. In times

REPORT OF THE PHYSICIAN-IN-CHIEF

past and even now, we have had far too many patients to handle in the way we would like. However, the problem of numbers has not been solved permanently, the decrease being largely due to a general decrease in illnesses treated in Out-Door Departments of all the Boston Hospitals. While these other institutions have shown a similar drop in their new patients, there has been a relative increase in their number of old patient visits. This is in contrast to our decrease. However, for a long time our average number of return visits for patients has been far greater than in any of the other local institutions. Their increased old patient visits is therefore only beginning to approach our ratio.

However, we should not close our eyes to the possibility that this drop in our numbers—desirable as it may be—may possibly be in part due to our own defects or omissions. The present depression has forced many self-satisfied concerns to take account of stock and see in what way their service can be improved. My four months service in the Medical O.D.D. has shown me that on the whole this department functions well and compares favorably with similar departments in other institutions. The only major weakness is the limitation of the department to Medicine and Surgery. At times it is very awkward and difficult to get a satisfactory special opinion on the condition of the sinuses, eyes, female pelvis, nervous system, etc. Usually it is necessary to refer the patient to another hospital. This frequently means marked delay and often loss of control of the patient. As an extreme example of what sometimes occurs let me cite what happened to one of our hypertensive luetics who had been for months under observation and treatment in our wards and in the Luetic and Renal Clinics. Because of an intractable headache he was referred to the Massachusetts Eye and

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Ear Infirmary for an opinion on the sinuses as a possible cause of this headache. He went to the Infirmary as directed. By them he was referred to the Massachusetts General Hospital Out-patient Department and then sent into the Massachusetts General Hospital for observation. Practically all of the studies made by us on our wards including a lumbar puncture were repeated, unnecessarily. Eventually after several weeks he returned to us with the story of his wanderings and a statement that he had had two polyps removed without improvement in his headache. We still know nothing official about the condition of his sinuses in spite of the fact that a request for such information was sent with him at the time he was referred by us four months previously. It would be very helpful if some method could be devised for getting such consultation opinions promptly and in a less round about way.

I see no adequate remedy for this weakness in our system except a much larger O.D.D. containing the various specialties. Possibly we could solve the problem by having specialists in the more common fields attached loosely to our O.D.D. These men might see on one day a week only cases referred from the Medical or Surgical O.D.D. If the patients were absolutely confined to such references, no great increase in the numbers in our O.D.D. would occur, no great burden would be thrown on anyone, and we could get much needed information directly and with far greater speed than under the present arrangement.

If such a scheme is not possible, another remedy that might help is to have some form of consultation sheet acceptable to other hospitals containing a résumé of our information, a request for specific information and an addressed stamped envelope.

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There are a few other defects, the correction of which would make for a better service. None of these demand immediate attention but all should be kept in mind and should be corrected soon.

One very annoying feature in the O.D.D. is the frequent failure of patients to keep their appointments. It is difficult to find any adequate remedy for this. The probable causes for such failures to appear are that the patient gets better before his appointment, or he gets very much worse and is compelled to seek help elsewhere. In either case, the average patient probably sees no reason why he should waste five cents on a phone call to cancel his appointment. There seems to be no adequate remedy for this situation when the patients are new. Possibly one might obviate some of the difficulty with old patients who make their appointments at the time of their previous visit by asking them for a deposit of one-half the usual fee.

There is another group of patients who I believe cancel for another reason more easily remedied. These are the ones that are given appointments at 8.15 a.m. This is much too early for the mother of children who have to be fed and made ready for school at 9 a.m. They should, of course, refuse such an early appointment. I am sure, however, that many accept such an early hour without thinking about it at the time and then later decide that they can't make it and go elsewhere. It seems to me that some method of speeding up the time consumed in getting through the booking, etc. at the door could be devised so that these patients could come at 8.45 a.m. If those that were to be cared for by students reached them by 9 a.m. this would be as soon as many of them get into their hands under the present arrangement. The student is often late,

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the patient may be late, or there is a delay of three-quarters of an hour in the booking.

One other condition of weakness which only indirectly concerns the management of the Medical O.D.D. is the teaching of the fourth-year students. Under the present arrangement these students do not see enough cases, averaging only one a morning. This is partially due to their own lack of knowledge and slowness and possibly in part to the teaching. It seems to me that they would see far more patients and would get much more training in handling ambulatory patients if each man spent one solid week of his two months entirely in the O.D.D. subject to the house officer whenever the visiting man is not there. This would also obviate the frequent absence from ward visits of a student who should be there to present a case.

Regarding the Special Clinics there is but little to say. With the exception of the Arthritic and Diabetic Clinics the men who are in charge are the same as in the preceding years. Dr. Monroe has taken the place of Dr. Hall in the Arthritic Clinic and Dr. Flynn is in active charge of the Diabetic Clinic succeeding Dr. Fitz. All the men are grateful for the decreased numbers of patients they have to handle because it means more careful study and management. Dr. Walker reports that "the treatment of his asthma and hay fever patients has been considerably better than in the previous several years." This he attributes to the smaller numbers and greater individual attention. Dr. Murphy reports marked success in the treatment of pernicious anemia patients with the new intramuscular liver extract, which he has perfected. This is of great value in the resistant cases, the very toxic patients that vomit and in those less serious cases who have difficulty in using liver. Furthermore the treatment is said to be less ex-

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pensive than the usual treatment. One injection a week is believed to be sufficient to control the average patient whose blood has been brought to normal and evidence is accumulating to suggest that in many patients less frequent dosage will be needed. The biggest problem in the blood clinic is the treatment of those patients with spinal cord changes. These need the help of a trained orthopedist.

For the most part the other clinics are following the plans of previous years and are doing excellent work in the study and management of their special groups. They have had no unusual items to report.

PUBLICATIONS FOR 1931. During 1931 certain lines of investigation have been pursued by the members of the Staff, as shown by the following list of publications. Some of these represent work actually done in the preceding year, but, according to our custom, are noted in the Annual Report only after their completion and publication, thereby avoiding duplication in being noted once when the work is under way and the second time when completed and published.

- CHRISTIAN, HENRY A. Nephritis. Proc. Internat. Assemb. Inter-State Post-Grad. M.A., North America (1930), 6:25, 1931.
— Clinical Varieties of Nephritis. Proc. Internat. Assemb. Inter-State Post-Grad. M.A., North America (1930), 6:71, 1931.
— The Clinic as a Center of Graduate Study. Jour. Am. Med. Assoc., 96:991, 1931.
— Aortic Stenosis with Calcification of the Cusps. Jour. Am. Med. Assoc., 97:158, 1931.
— Chronic Nonvalvular Cardiac Disease or Chronic Myocardial Insufficiency and Its Therapeutic Management. Ann. Int. Med., 5:95, 1931.

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- CHRISTIAN, HENRY A. The Mechanism of Edema in Relation to the Clinical Classification of Bright's Disease (Nephritis). Frank Billings lecture. *Jour. Am. Med. Assoc.*, 97:296, 1931.
- Aortic Stenosis with Calcification. *Internat. Clinics*, 3:51, 1931.
- Aortic Lesions in Relation to Cardiac Function and Physical Signs. *New Eng. Jour. Med.*, 205:893, 1931.
- The Educational Import of the International Medical Assembly. *Milwaukee Med. Times.*, IV: No. 10, 23, 1931.
- FROTHINGHAM, CHANNING. The Differential Diagnosis Between Pulmonary Tuberculosis and Pulmonary or Bronchial Malignant Neoplasms. *Am. Rev. Tuber.*, 23:107, 1931.
- What the Committee on the Costs of Medical Care is Trying to Do. *New Eng. Jour. Med.*, 204:1041, 1931.
- FITZ, REGINALD. The Practice of Medicine as a Problem in Industrial Hygiene. *Jour. Am. Med. Assoc.*, 97:443, 1931.
- The Problem of Tuberculosis in Medical Students. *Jour. Am. Med. Assoc.*, 96:2063, 1931.
- Renal Diabetes. *Oxford Medicine*, Oxford University Press, New York, 4:178(13), 1931.
- DERICK, CLIFFORD L. Spontaneous Hyperinsulinism. *Oxford Medicine*, Oxford University Press, New York, 4:178(23), 1931.
- DERICK, C. L., SWIFT, H. F., HITCHCOCK, M. D. AND McEWEN, C. Intravenous Vaccination with Streptococci in Rheumatic Fever. *Am. Jour. Med. Sci.*, 181:1, 1931.
- DERICK, C. L. AND FULTON, M. N. Skin Reactions of Patients and Normal Individuals to Protein Extracts of Streptococci. *Jour. Clin. Invest.*, 10:121, 1931.
- BARKER, LEWELLYS F. I. Clinical Presentation of Cases at the Harvard Medical Society. II. Ward Rounds in the Peter Bent Brigham Hospital (Medical Service of Professor Henry A. Christian). *Internat. Clinics*, 3:7, 1931.
- O'HARE, JAMES P. Treatment of Hypertension. *New Eng. Jour. Med.*, 204: 602, 1931.
- Diseases of the Kidney (Nephritis). *Nelson Loose Leaf System of Medicine*, IV; 651, 1931.
- LEVINE, SAMUEL A. The Factor of Bronchial Dyspnea in Heart Disease. *New Eng. Jour. Med.*, 205:941, 1931.

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- AUB, J. C., ALBRIGHT, F. AND BAUER, W. Studies of Calcium and Phosphorus Metabolism. VIII. The Influence of the Thyroid Gland and the Parathyroid Hormone upon the Total Acid-Base Metabolism. *Jour. Clin. Invest.*, 10:187, 1931.
- AUB, JOSEPH C. AND SALTER, WILLIAM T. Studies of Calcium Phosphorus Metabolism. IX. Calcium Deposition in Bone in Healing Scorbutus. *Arch. of Path.*, 11:380, 1931.
- AUB, J. C., BAUER, W. AND SALTER, W. T. Studies of Calcium and Phosphorus Metabolism. Xa. The Use of Calcium Chloride to Relieve Peristaltic Pain. *Jour. Am. Med. Assoc.*, 96:1216, 1931.
- AUB, J. C., FITZHUGH, G., MILLER, M. L. AND TAYLOR, G. W. Studies of Calcium and Phosphorus Metabolism. Xb. The Effect of Intravenous Calcium Chloride on Peristalsis Following Intestinal Obstruction in Dogs. *Am. Jour. Physiology*, 97:142, 1931.
- AUB, J. C., FARQUHARSON, R. F., SALTER, W. T. AND TIBBETTS, D. M. Studies of Calcium and Phosphorus Metabolism. XII. The Effect of the Ingestion of Acid-Producing Substances. *Jour. Clin. Invest.*, 10:221, 1931.
- AUB, J. C., FARQUHARSON, R. F. AND SALTER, W. T. Studies of Calcium and Phosphorus Metabolism. XIII. The Effect of Ingestion of Phosphates on the Excretion of Calcium. *Jour. Clin. Invest.*, 10:251, 1931.
- EGLOFF, W. C., HOYT, L. H. AND O'HARE, J. P. Observations on Thiocyanate Therapy in Hypertension. *Jour. Am. Med. Assoc.*, 96:1941, 1931.
- EMERY, EDWARD S., JR., AND MONROE, ROBERT T. Peptic Ulcer. The Diagnostic Value of the Roentgen Ray Before and After Treatment. *Am. Jour. Roent. & Red. Ther.*, 25:51, 1931.
- FULTON, MARSHALL N. AND HAHN, RICHARD G. The Subsequent Course of Forty Patients with Acute "Dry" Pleurisy. *Jour. Am. Med. Assoc.*, 97:1959, 1931.
- GRABFIELD, G. P. Observations on Efficiency of Commonly Used Hypnotics. *Jour. Am. Med. Assoc.*, 96:1865, 1931.
- Studies on the Nitrogen and Sulphur Metabolism in "Bright's Disease." II. Observations on the Nitrogen and Sulphur Excretion in Patients Without Renal Edema. *Jour. Clin. Invest.*, 10:309, 1931.

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- GRABFIELD, G. P. AND CAMPBELL, A. G. A Note on the Relation Between Blood Cholesterol and Basal Metabolic Rate. *New Eng. Jour. Med.*, 205:1148, 1931.
- GRABFIELD, G. P. AND PRATT, J. H. The Action of Cinchophen. *Jour. Pharm. & Exp. Ther.*, 42:407, 1931.
- HAHN, RICHARD G. Intracranial Aneurysm. Report of a Case. *New Eng. Jour. Med.*, 204:549, 1931.
- MONROE, ROBERT T. AND HALL, FRANCIS C. The Feces of Patients with Chronic Arthritis. *Arch. Int. Med.*, 47:764, 1931.
- MURPHY, WILLIAM P. Agranulocytosis. (Agranulocytic An-gina or the Agranulocytic Symptom Complex.) Oxford Medicine, Oxford University Press, New York, 2:841, 1931.
- MURPHY, WILLIAM P. AND POWERS, JOHN H. The Treatment of Secondary Anemia. Further Observations. *Jour. Am. Med. Assoc.*, 96:504, 1931.
- MURPHY, W. P., LYNCH, R. AND HOWARD, I. M. The Value of Determinations of the Iron Content of Whole Blood. *Arch. Int. Med.*, 47:883, 1931.
- SHELBURNE, SAMUEL A. AND EGLOFF, WILLIAM C. Experimental Edema. *Arch. Int. Med.*, 48:51, 1931.
- THURMON, FRANCIS AND BLAIN, DANIEL. Syphiloderma Pustulosum. Case Report with Histologic Studies and Tissue Transplants of Cutaneous Lesions. *Am. Jour. Syphilis*, 15:213, 1931.
- Paroxysmal Hemoglobinuria. Observations Based Upon a Study of Three Cases. *Am. Jour. Syphilis*, 15:350, 1931.
- WALKER, I. CHANDLER. Apparent Specificity Among Streptococci and the Cause of Some Failures of Mixed Streptococcus Vaccines in the Treatment of Chest Colds and Asthma. *Jour. Lab. & Clin. Med.*, 16:539, 1931.

The annual report provides an occasion to acknowledge helpful and cheerful cooperation from all members of our hospital family in facilitating the work of the medical service. On behalf of the members of the med-

REPORT OF THE PHYSICIAN-IN-CHIEF

ical staff I take pleasure in acknowledging our great indebtedness to all workers in the hospital.

HENRY A. CHRISTIAN,

Physician-in-Chief.

DECEMBER 31, 1931.

Summary of Medical Statistics

JANUARY 1, 1931 TO JANUARY 1, 1932

Total number of admissions in 1931	1,980
Total number of medical cases remaining in the wards, January 1, 1931	69
	—
	2,049
Total number medical readmissions discharged in 1931	155
Total number of medical new cases discharged in 1931	1,821
	—
	1,976
Total number of medical cases remaining in the wards, January 1, 1932	73
	—
	2,049
Results on medical cases discharged in 1931 were as follows:	
Total number discharged well	115
Total number discharged improved	998
Total number discharged unimproved	208
Total number discharged untreated	299
Total number transferred to Surgical Service	185
Total number dead	171
	—
	1,976
Total number of medical cases remaining in the wards January 1, 1932	73
	—
	2,049

Visiting Physicians and Surgeons *Pro Tempore*

SIR CHARLES BALLANCE

K.C.M.G., C.B.; Consulting Surgeon to British Army, 1914-19; Col., R.A.M.C.; Consulting Surgeon to St. Thomas Hospital and to the National Hospital for Paralysis and Epilepsy; *Surgeon-in-chief pro tem.*, *P. B. B. H.*, October 15 to October 25, 1928.

DR. LEWELLYS F. BARKER

M.B., Univ. of Toronto, 1890; M.D. (Hon.) Univ. of Toronto, 1905; Queen's, 1908; LL.D., McGill, 1911; Emeritus Professor of Medicine, Johns Hopkins University and Visiting Physician, Johns Hopkins Hospital; *Physician-in-chief pro tem.*, *P. B. B. H.*, April 21 to April 27, 1931.

DR. FRANK BILLINGS

M.D., Northwestern Univ., 1881; M.S., *ibid.*, 1890; Sc.D., Harvard, 1915; Professor of Medicine, Northwestern Univ., 1891-98; Professor of Medicine, Rush Medical College, 1898-1905; Professor of Medicine, Univ. of Chicago, 1905-24; *Physician-in-chief pro tem.*, *P. B. B. H.*, May 15 to May 20, 1916.

DR. LEWIS A. CONNER

Ph.B., Yale Univ., 1887; M.D., Columbia Univ., 1890; Physician, New York Hospital, 1905; Professor Clinical Medicine, Cornell Univ. Med. School, 1905-16; Professor of Medicine, *ibid.*, 1916; *Physician-in-chief pro tem.*, *P. B. B. H.*, April 8 to April 15, 1923.

PROF. OTFRID FOËRSTER

Professor of Neurology, Univ. of Breslau; *Surgeon-in-chief pro tem.*, *P. B. B. H.*, October 1 to October 14, 1930.

MR. GEORGE E. GASK

Graduate of St. Bartholomew's Hospital, London, England; Consulting Surgeon, B. E. F., receiving C.M.G. and a D.S.O.; Surgeon and Director of Surg. Unit to St. Bartholomew's Hosp.; Professor of Surgery, Univ. of London; *Surgeon-in-chief pro tem.*, *P. B. B. H.*, March 20 to April 3, 1921.

DR. DUNCAN GRAHAM

M.D., Univ. of Toronto, 1905; Professor of Medicine, Univ. of Toronto; Physician-in-chief, Toronto General Hospital; *Physician-in-chief pro tem.*, *P. B. B. H.*, March 3 to March 10, 1929.

DR. EVARTS GRAHAM

M.D., Rush Medical College, 1907; Professor of Surgery, Washington Univ., St. Louis, Mo.; *Surgeon-in-chief pro tem.*, *P. B. B. H.*, April 26, 1925-May 3, 1925.

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DR. JAMES B. HERRICK

A.B., Univ. of Mich., 1882 (Hon. A.M., *ibid.*, 1907); M.D., Rush Medical College, 1888; Professor of Medicine, *ibid.*, 1900; Attending Physician, Presbyterian Hospital, Chicago, Illinois, 1895; *Physician-in-chief pro tem.*, *P. B. B. H.*, Feb. 15 to Feb. 21, 1924.

DR. GEORGE J. HEUER

M.D., Johns Hopkins Univ., 1907; successively Associate Professor of Surgery, Johns Hopkins Univ., Professor of Surgery, Univ. of Cincinnati, and Professor of Surgery, Cornell Univ. Medical School, New York, *Surgeon-in-Chief pro tempore*, *P. B. B. H.*, July 12-16, 1932.

DR. ALBION WALTER HEWLETT

B.S., Univ. of Cal., 1895; M.D., Johns Hopkins Medical School, 1900; Professor of Internal Medicine, Univ. of Mich., 1908-16; Professor of Medicine, Leland-Stanford Jr. Univ., San Francisco, 1916-25; *Physician-in-chief pro tem.*, *P. B. B. H.*, May 1 to May 4, 1915, and Jan. 2 to Jan. 8, 1916. Died Nov. 10, 1925.

DR. CHARLES F. HOOVER

M.D., Harvard, 1892; Professor of Medicine, Western Reserve Univ., Cleveland, Ohio; *Surgeon-in-chief pro tem.*, *P. B. B. H.*, Feb. 3 to Feb. 9, 1924. Died June 15, 1927.

DR. CAMPBELL P. HOWARD

M.D., McGill, 1901; Professor of Medicine, McGill University, Montreal; Physician to Montreal General Hospital, Montreal; *Physician-in-chief pro tem.*, *P. B. B. H.*, November 16 to November 21, 1931.

DR. SAMUEL W. LAMBERT

A.B., Yale, 1880; Ph.B., *ibid.*, 1882; M.D., Columbia, 1885; A.M., Yale, 1905; D.Sc., Columbia, 1921; Professor Clinical Medicine, Columbia, 1903-19; Dean, Coll. Phys. and Surgs. (Columbia), 1904-19; Attending Physician, New York Hosp., 1896-1909; Attending Physician, St. Luke's Hosp., 1906; *Physician-in-chief pro tem.*, *P. B. B. H.*, Jan. 24 to Jan. 30, 1926.

DR. HENRY ROBERT MURRAY LANDIS

A.B., Amherst, 1894; M.D., Jefferson Med. Coll., 1897; Director, Clinical and Sociological Departments, Henry Phipps Institute, Philadelphia, Pennsylvania; *Physician-in-chief pro tem.*, *P. B. B. H.*, Jan. 18 to Jan. 25, 1919.

PROF. RENÉ LERICHE

Professor of Surgery, University of Strasbourg; Professor of Surgery, University of Lyons, 1932; *Surgeon-in-chief pro tem.*, *P. B. B. H.*, June 12 to June 20, 1929.

DR. DEAN DEWITT LEWIS

A.B., Lake Forest Univ., 1895; M.D., Rush Med. Coll., 1899; Associate Professor of Surgery, Rush Medical College, 1919-25; Attending Surgeon, Presbyterian Hosp., Chicago; Professor of Surgery, Johns Hopkins Univ., 1925; *Surgeon-in-chief, pro tem.*, *P. B. B. H.*, March 15 to March 24, 1920.

PETER BENT BRIGHAM HOSPITAL

SIR THOMAS LEWIS

C.B.E.; F.R.C.P.; F.R.S.; M.D., University College, London, England, 1906; Physician, University College, London, England; Physician to Staff of Med. Research Comm.; *Physician-in-chief pro tem.*, *P. B. B. H.*, Oct. 26 to Nov. 2, 1914.

DR. WARFIELD T. LONGCOPE

A.B., Johns Hopkins Univ., 1897; M.D., *ibid.*, 1901; Bard Professor of Medicine, Columbia Univ., New York, 1914-21; Professor of Medicine, Johns Hopkins Univ., and Physician-in-chief, Johns Hopkins Hospital, 1922; *Physician-in-chief pro tem.*, *P. B. B. H.*, Jan. 13 to Jan. 20, 1917.

DR. WILLIAM DE B. MACNIDER

M.D., Univ. of N. C., 1903; Professor of Pharmacology, Univ. of N. C., 1905; *Physician-in-chief pro tem.*, *P. B. B. H.*, April 13 to April 17, 1925.

DR. THOMAS McCRAE

A.B., Univ. of Toronto, 1891; M.B.; M.D., *ibid.*, 1903; F.R.C.P., England; Associate Professor of Medicine, Johns Hopkins Univ., 1906-12; Professor of Medicine, Jefferson Med. Coll., 1912; Physician to Jefferson and Penn. Hosps.; *Physician-in-chief pro tem.*, *P. B. B. H.*, March 13 to March 19, 1921.

DR. JAMES S. McLESTER

A.B., Univ. of Alabama, 1896; M.D., Univ. of Virginia, 1899; Prof. of Med., Univ. of Alabama; *Physician-in-chief pro tem.*, *P. B. B. H.*, April 27 to May 3, 1930.

PROF. GUNNAR NYSTRÖM

Professor of Surgery, University of Upsala, Sweden; *Surgeon-in-chief pro tem.*, *P. B. B. H.*, May 23 to May 26, 1930.

SIR D'ARCY POWER, K.B.E.

M.A., M.B., Univ. of Oxford, 1882; F.R.C.S. (England), 1883; Consulting Surgeon, St. Bartholomew's Hospital, London, England; *Surgeon-in-chief pro tem.*, *P. B. B. H.*, April 20 to May 5, 1924.

PROF. VITTORIO PUTTI

Professor of Orthopedics, University of Bologna; Director, Istituto Ortopedico Rizzoli; *Surgeon-in-chief pro tem.*, *P. B. B. H.*, May 30 to June 6, 1932.

DR. DAVID RIESMAN

M.D., Univ. of Pa., 1892; Prof. Clin. Med., *ibid.*; Physician, Philadelphia General Hospital and University Hospital, Pa.; Clinician, Philadelphia; *Physician-in-chief pro tem.*, *P. B. B. H.*, April 25 to May 2, 1927.

DR. EMMET RIXFORD

M.D., Cooper Medical College, San Francisco, 1891; Professor of Surgery, Leland-Stanford Jr. Univ.; *Surgeon-in-chief pro tem.*, *P. B. B. H.*, April 25 to May 9, 1927.

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SIR HUMPHRY ROLLESTON, Bart.

G.C.V.O.; K.C.B.; M.A. and M.D., Cambridge University; Fellow and sometime President of the Royal College of Physicians of London; Hon. D.Sc., D.C.L., LL.D.; Fellow and sometime President of the Royal Society of Medicine; Consulting Physician (Temporary Surgeon Rear-Admiral) to the Royal Navy, 1914-19; Emeritus Physician, St. George's Hospital, London; Physician in Ordinary to H. M., the King; Regius Professor of Physic, University of Cambridge, Cambridge, England; *Physician-in-chief pro tem.* *P. B. B. H.*, March 25 to April 1, 1928.

DR. CLARENCE L. STARR

M.B., Univ. of Toronto; M.D., Univ. of New York; LL.D.; Professor of Surgery, Univ. of Toronto; Surgeon-in-chief, Toronto General Hosp.; *Surgeon-in-chief pro tem.*, *P. B. B. H.*, March 7 to March 16, 1926. Died Dec. 25, 1928.

SIR HAROLD J. STILES

Kt., cr. 1918; K.B.E., cr. 1919; M.B., C.M., F.R.C.S., Edinburgh; British Colonel, R.A.M.C.; Mem. Army Med. Advisory Board; Surgeon, Royal Edinburgh Hosp. for Sick Children, and Chalmers Hosp.; Professor of Clinical Surgery, 1919-25; Late Lecturer on Applied Anatomy, Univ. of Edinburgh; *Surgeon-in-chief pro tem.*, *P. B. B. H.*, April 8 to April 21, 1923.

DR. WILLIAM S. THAYER

A.B., Harvard, 1885; M.D., *ibid.*, 1889; LL.D., Washington Coll., 1907; Hon. F.R.C.P.I., 1912; Brig. General, U. S. A. M. C., 1918-19; Professor of Medicine, Johns Hopkins Univ., 1919-21; Physician-in-Chief, Johns Hopkins Hosp., 1919-21; Visiting Physician, Johns Hopkins Hosp., 1921; *Physician-in-Chief pro tem.*, *P. B. B. H.*, Nov. 14 to Nov. 21, 1913.

SIR CUTHBERT WALLACE

C.B., 1918; K.C.M.G., 1916; M.B., B.S., London; F.R.C.S., Eng.; Surgeon to St. Thomas' Hosp.; Dean, St. Thomas' Hosp. Med. School; Late Surgeon, East London Hosp. for Children; Lecturer on Surgery, St. Thomas' Hosp.; served in South Africa as Surgeon to Portland Hosp., 1900; European War, 1914-18; Maj. Gen., A. M. S.; Consulting Surgeon, B. E. F., France; *Surgeon-in-Chief pro tem.*, *P. B. B. H.*, April 24 to May 8, 1922.

PROF. DAVID PERCIVAL DALBRECK WILKIE

O.B.E., M.D., M.Ch., F.R.C.S. (Edin. and Eng.); Professor of Surgery, University of Edinburgh; Surgeon to the Edinburgh Royal Infirmary; *Surgeon-in-chief pro tem.*, October 8 to October 11, 1929.

DR. ROLLIN TURNER WOODYATT

B.S., Univ. of Chicago, 1896; M.D., Rush Med. Coll., 1902; Clin. Professor of Medicine, Univ. of Chicago; Attending Physician, Presbyterian Hosp., Chicago; *Physician-in-Chief pro tem.*, *P. B. B. H.*, Dec. 16 to Dec. 23, 1921.

Traveling Fellows in Surgery

LEO M. DAVIDOFF	1926
HARLAN F. NEWTON	1927
FRANC D. INGRAHAM	1928

George Gorham Peters Traveling Fellows

ARTHUR J. MCLEAN	1929
ERIC OLDBERG	1930
FRANK N. GLENN	1931

Register of Present Members of the Staff

ABBREVIATIONS

P. B. B. H.—Peter Bent Brigham Hospital	M. G. H. —Massachusetts General Hospital
B. C. H. —Boston City Hospital	Harv. —Harvard University
J. H. H. —Johns Hopkins Hospital	H. O. —House Officer

ADAMS, LEYLAND J.

M.D., C.M., McGill, 1927; Interne in Pathol., Montreal Gen. Hosp., 1927-28; Interne in Med., *ibid.*, 1928-29; Interne in Surg., *ibid.*, 1929-30; *Asst. Res. Phys.*, P. B. B. H.

ALTSCHULE, MARK D.

B.S., College of City of N. Y., 1927; M.D., Harv., 1932; *Pathol. H. O.*, P. B. B. H.

AUB, JOSEPH C.

A.B., Harv.; M.D., *ibid.*, 1916; Physician-in-Chief, Huntington Memorial Hospital; Assoc. Prof. of Med., Harv.; *Sr. Assoc. in Med.*, P. B. B. H.

BENNETT, DARWIN E.

B.S., Whitman, 1924; M.D., Harv., 1931; *Pathol. H. O.*, P. B. B. H., July 1, 1931-Jan. 1, 1932; *Surg. H. O.*, *ibid.*

BERRY, ARTHUR N.

B.A., Univ. of the South, 1926; M.D., Harv., 1930; House Surg., Free Hosp. for Women, Aug. 1, 1930-March 31, 1931; *Surg. H. O.*, P. B. B. H.

BISHOP, COURTNEY CRAIG

A.B., Yale, 1926; M.D., *ibid.*, 1930; *Surg. H. O.*, P. B. B. H.

BLAIN, DANIEL

B.A., Wash. and Lee Univ., 1921; M.D., Vanderbilt, 1929; *Med. H. O.*, P. B. B. H., Nov. 1, 1929-March 1, 1931; Fellow in Psychiatry, Austen Riggs Foundation, Stockbridge, Mass.

BLOTNER, HARRY H.

A.M., Harv., 1931; M.D., Tufts, 1924; Gen. Interne, Eastern Maine Gen. Hosp., July 1, 1924-July 1, 1925; *Asst. Res. Phys.*, P. B. B. H., Dec. 8, 1925-Dec. 1, 1926; Asst. in Med., H. M. S.; *Jr. Assoc. in Med.*, P. B. B. H., Dec. 1, 1926-Sept. 1, 1927; Consultant, Weymouth Hosp.; Asst. in Med., Harv.; *Jr. Assoc. in Med.*, P. B. B. H.

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BOYD, WALTER WILLARD

E.E., Univ. of Va., 1920; M.S., M. I. T., 1922; M.D., Harv., 1928; *Surg. H. O., P. B. B. H.*, Oct. 1, 1928-Feb. 1, 1930; House Phys., B. L. I., 1930-31; Asst. Res. Surg., *P. B. B. H.*, April 1, 1931-Jan. 15, 1932.

BOYES, JOSEPH H.

A.B., Stanford, 1926; M.D., *ibid.*, 1930; H. O., Pathol., M. G. H., July, 1929-June, 1930; *Surg. H. O., P. B. B. H.*, July 1, 1930-November 1, 1931; Res. Surg., Stanford Univ. Med. Sch. Hosps., San Francisco.

BUHRMESTER, JR., HARRY C.

M.D., Harv., 1930; H. O., Church Home and Infirmary, Baltimore, Maryland, 1930-31; *Med. H. O., P. B. B. H.*, Feb. 15, 1931-Nov. 1, 1931.

BYSSHE, STANLEY M.

A.B., Harv., 1927; M.D., *ibid.*, 1931; *Surg. H. O., P. B. B. H.*

CANNON, WALTER BRADFORD

A.B., Harv., 1896; A.M., *ibid.*, 1897; M.D., *ibid.*, 1900; S.D., Yale, 1923; LL.D., Wittenberg, 1927, Boston University, 1929; Doctor, Liege, 1930; Doctor, Strasbourg, 1930; Doctor, Paris, 1931; C.B. (military), 1919; D.S.M., 1922; Instr. in Zoölogy, Harv., 1899-1900; Instr. in Physiol., *ibid.*, 1900-02; Asst. Prof. Physiol., *ibid.*, 1902-06; George Higginson Prof. Physiol., *ibid.*; Fellow, Am. Acad., 1906; Mem. Am. Philos. Soc., 1908; Mem. Nat. Acad. of Sciences, 1914; Croonian Lecturer, Royal Society, London, 1918; Corr. Mem., Société de Biologie, Paris, 1919; Reale Accademia delle Scienze, Bologna, 1921; Honorary Member, Sociedad de Biología, Buenos Aires, 1922; Assoc. Mem., Société Belge de Biologie and Société de Psychologie, Paris, 1930; Foreign Honorary Fellow, Royal Society Edinburgh, 1930; Exchange Professor for France, 1929-30; Baly Medalist, Royal College of Physicians, London, 1931; *Consult. Physiol., P. B. B. H.*

CASHMAN, CHARLES J.

D.M.D., Harv., 1928; *Dental Interne, P. B. B. H.*, Oct. 1, 1930-Aug. 1, 1931; Asst. Instr. in Extraction and Anesthesia, Harv.; Grad. Asst., Dental Clin., M. G. H.

CHEEVER, DAVID

A.B., Harv., 1897; M.D., *ibid.*, 1901; *Surg. H. O., B. C. H.*, 1901-03; Asst. in Anat., Harv., 1903-08; Asst. Visit. Surg., B. C. H., 1905-12; Demonstr. in Anat., Harv., 1908-13; Asst. Prof. Surg. Anat., Harv.; Chief Surg., 2d Harv. Unit, B. E. F., France, 1915-16; Assoc. Prof. of Surg., Harv.; *Surg., P. B. B. H.*

CHRISTIAN, HENRY ASBURY

A.B., and A.M., Randolph-Macon, 1895; Grad. Stud., *ibid.*, 1895-96; LL.D., *ibid.*, 1923; M.D., Johns Hopkins, 1900; A.M., Harv.,

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1903; Sc.D. (Hon.) Jefferson, 1928; LL.D., Western Reserve, 1931; Asst. Pathol., B. C. H., 1900-02; Asst. Visit. Pathol., *ibid.*, 1902-05; Asst. Visit. Pathol., Children's Hosp., Boston, 1902-05; Instr. in Pathol., Harv., 1902-05; Asst. Visit. Phys., Long Island Hosp., Boston, 1905; in charge of med. students, M. G. H., 1905-07; Instr. in Theory and Practice of Physic, Harv., 1905-07; Asst. Prof. in Theory and Practice of Physic, *ibid.*, 1907-08; Phys.-in-Chief, Carney Hosp., Boston, 1907-12; Dean, Faculty of Med. and of Med. Sch., Harv., 1908-12; Fellow, Am. Acad.; Corr. Mem., Wiener Gesellschaft. f. innere Medizin, etc.; formerly Major, M. R. C., U. S. Army; (on leave of absence Oct. 1, 1919-Oct. 1, 1920, as Chairman, Div. of Med. Sciences, Nat'l Research Council, Washington, D. C.); Hersey Prof., Theory and Practice of Physic, Harv., since 1908; Physician-in-Chief, *P. B. B. H.*

CLAY, CHARLES L.

B.S., Dart., 1919; M.D., Columbia Univ., Coll. of Phys. and Surgs.. 1921; Interne, Lawrence General Hosp., 1921-22; Member, Med. Staff, Danvers State Hosp., 1922-28; 2nd Asst. Supt., *P. B. B. H.*, Jan. 15, 1928-July 1, 1930; 1st Asst. Supt., *ibid.*

CLIFFORD, MILTON HENRY

A.B., Harv., 1927; M.D., *ibid.*, 1931; *Med. H. O.*, *P. B. B. H.*

CLIFFORD, RANDALL

A.B., Harv., 1912; M.D., *ibid.*, 1917; Sr. Grade, U. S. Navy Med. Corps; Visit. Phys., Prendergast Preventorium, 1923-24; Asst. Phys., Channing Home, 1924-29; Asst. to Out-Patients, M. G. H., 1923-29; Assoc. in Med., M. G. H., 1929-31; Asst. in Med., Harv.; Assoc. in Med., *P. B. B. H.*

CUSHING, HARVEY

A.B., Yale, 1891; A.M. and M.D., Harv., 1895; House Pupil, M. G. H., 1895-96; Res. Surg., J. H. H., 1896-1900; successively Asst., Instr. and Assoc. Prof. in Surg., J. H. M. S., 1898-1912; Hon. F.R.C.S., London, 1913, Ireland, 1918, and Edinburgh, 1927; Hon. A.M., Yale, 1913; D.Sc., Washington, 1915, and Yale, 1919; LL.D., Western Reserve, 1919, Cambridge, 1920, Glasgow, 1927, Edinburgh, 1927; Litt.D., Jefferson, 1926, Dartmouth, 1929; Dr. (*Hon. caus.*), Strasbourg, 1929, Brussels, 1930, Bern, 1931; Budapest, 1931; Amsterdam, 1932; Am. Acad. of Arts and Sciences, 1914; Nat. Acad. Sciences, 1917; Am. Phil. Soc. 1930; Director U. S. A. Base Hosp. No. 5, 1916-1919; Col., M. C., U. S. A.; Companion of the Bath; D.S.M.; Offic. Legion d'Honneur; Stud., St. Bartholomew's Hosp., 1922; Mickle Fellow, Univ. of Toronto, 1922; Cameron Prize, Univ. of Edinburgh, 1924; Macewen Lecturer, Univ. of Glasgow, 1927; Lister medalist, Royal Coll. Surg. (London), 1930; Moseley Prof. of Surg., Harv., 1912-32; Surgeon-in-chief, *P. B. B. H.*

DAVENPORT, LOWREY F.

B.S., Emory, 1927; M.D., Univ. of Rochester, 1931; *Med. H. O.*, *P. B. B. H.*

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DAY, HILBERT FRANCIS

Ph.B., Yale, 1901; M.D., Harv., 1905; Surg. H. O., B. C. H., 1905-07; House Phys., Boston Lying-in-Hosp., 1907-08; 3rd Asst. Visit. Surg., B. C. H. (Gynecol. Dept.), 1908-09; District Phys., Boston Disp., 1909-12; Asst. Surg., Boston Disp., 1912-14; Surg., *ibid.*, 1914-19; Asst. in Surg., Harv., 1919-21; Instr. in Surg., *ibid.*; Prof. in Clin. Surg., Tufts; Surg.-in-chief, Boston Disp.; *Assoc. in Surg.*, *P. B. B. H.*

DENNY, GEORGE PARKMAN

A.B., Harv., 1909; M.D., *ibid.*, 1913; *Med. H. O., P. B. B. H.*, June 1, 1913-July 1, 1914; Vol. Lab. of Physiol. Research, Johns Hopkins, 1914-15; Capt., M. C., U. S. Army; Alumni Asst. in Med., Harv., 1915-16; Phys. to Med. Students, *ibid.*; Director of Scholarships, *ibid.*; Attend. Phys., Channing Home, Boston; Assoc. Chief, Med. Dept., Boston Disp.; *Assoc. in Med.*, *P. B. B. H.*

DERICK, CLIFFORD L.

M.D., McGill Univ., 1918; H. O., Montreal Gen. Hosp., 1919-22; Fellow, Nat. Research Council, 1922-23; *Asst. Res. Phys.*, *P. B. B. H.*, 1923-24; Asst. in Med. and Research Fellow in Bio-Chemistry, Harv., 1923-24; Asst. Res. Phys., Rockefeller Hosp., N. Y., 1924-28; Asst. Prof. Med., Harv.; *Physician*, *P. B. B. H.*

DIACK, SAMUEL

B.S., Chem. Engineering, Calif. Inst. of Tech., 1925; M.S., Physiol. Chem., Univ. of Mich., 1926; M.D., *ibid.*, 1930; *Med. H. O., P. B. B. H.*

DIAL, DONALD EMERY

B.A., Yale, 1925; M.D., *ibid.*, 1928; Pathol. Interne, New Haven Hosp., 1928-29; Fellow in Plastic Surg., Johns Hopkins Hosp., 1929-30; *Surg. H. O., P. B. B. H.*, Apr. 1, 1930-Aug. 1, 1931; Asst. Res. in Surg., New Haven Hosp.

DOTY, EDWIN J.

M.D., Univ. of Mich., 1929; *Med. H. O., P. B. B. H.*, Mar. 1, 1930-July 1, 1931; Asst. Phys., State Psychopathic Hosp., Ann Arbor, Mich.

DRISSEN, EDWARD M.

B.A., Univ. of Wis., 1929; M.D., Harv., 1931; Surg. H. O., Children's Hosp., Boston, 1931-32; *Surg. H. O., P. B. B. H.*

DU MORTIER, JEAN J.

B.A., Columbia, 1927; M.D., Yale, 1931; Substitute Interne, New Haven Hosp., Oct. 1930-May, 1931; *Surg. H. O., P. B. B. H.*

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ECKELS, JOHN C.

M.D., Harv., 1927; Internship, Lankenau Hosp., Philadelphia, 1928-30; *Asst. Res. Surg., P. B. B. H., Jan., 1930-Sept., 1931*; Moseley Traveling Fellow, 1931-32.

EGLOFF, WILLIAM C.

S.B., Univ. of Chicago, 1923; M.D., *ibid.*, 1927; Interne, St. Luke's Hosp., Chicago, 1926-28; Med. service, Billings Memorial Hosp., Univ. of Chicago, Jan.-July, 1928; *Jr. Assoc. in Med., P. B. B. H.*

EISENHARDT, LOUISE

M.D., Tufts, 1925; Interne, N. E. Hosp. for Women and Children, 1925-26; Attend. Phys., *ibid.*, 1926-29; Consult. Neurol., *ibid.*; *Jr. Assoc. in Neurol. Surg., P. B. B. H.*

EMERY, JR., EDWARD STANLEY

A.B., Harv., 1916; M.D., *ibid.*, 1920; *Med. H. O., P. B. B. H., Nov. 1, 1920-March 1, 1922; H. O. X-ray Dept., ibid., July 1, 1922-July 1, 1923*; Stud. in Clin. of Dr. Sippy, Presbyterian Hosp., Chicago, 1923-24; Asst. in Med., Harv.; Phys. to Boston Disp.; *Jr. Assoc. in Med., P. B. B. H., April 24, 1924-May 10, 1926; Assoc. in Med., ibid.*

EPPINGER, EUGENE CHARLES

A.B., Williams, 1926; M.D., Harv., 1930; *Med. H. O., P. B. B. H.*

ESCAMILLA, ROBERTO FRANCISCO

A.B., Univ. of Cal., 1927; M.D., Harv., 1931; *Med. H. O., P. B. B. H.*

EVANS, WILLIAM

A.B., Williams, 1926; M.D., Johns Hopkins, 1930; *Med. H. O., P. B. B. H.*

FITZ, REGINALD

A.B., Harv., 1906; M.D., *ibid.*, 1909; Med. House Pupil, M. G. H., 1910-11; Vol. Asst. in Pharmacol. and in Med. Clinic, J. H. H., 1911-12; *Sr. Med. H. O., P. B. B. H., Nov. 1, 1912-July 1, 1913; Asst. Res. Phys., ibid., July 1, 1913-Sept. 1, 1915 (granted leave of absence to Dec. 31, 1916)*; Fellow in Physiol., Harv., 1914-15; Asst. Res. Phys., Rockefeller Inst. Hosp., New York City; Major, M. C., U. S. Army, 1917-19; Assoc. in Med. and Act. Res. Phys., East Med. Serv., M. G. H., 1919-20; Mayo Clinic and Mayo Foundation, 1920-22; Assoc. Prof. of Med., Harv.; *Phys., P. B. B. H.*

FLEMING, ROBERT

A.B., Trinity, 1924; A.M., Harv., 1926; M.D., *ibid.*, 1930; *Med. H. O., P. B. B. H.*

FLYNN, JOHN MOLLOY

A.B., Boston College, 1923; M.D., Harv., 1927; *Med. H. O., P. B. B. H., Nov. 1, 1927-March 1, 1929*; Asst. in Med., Harv.; *Jr. Assoc. in Med., P. B. B. H.*; in practice, Boston.

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FOLIN, OTTO

S.B., Univ. of Minn., 1892; Ph.D., Univ. of Chicago, 1898; Sc.D., Washington Univ., 1915; Sc.D., Univ. of Chicago, 1916; Hon. M.D., Lund, 1918; Mem. Nat. Acad., 1916; Stud., Univs. of Sweden and Germany, 1897 and 1898; Asst. Prof. of Physiol. Chem., Univ. of W. Va., 1899-1900; Research Chem., McLean Hosp., Waverley, 1900-08; Assoc. Prof. of Biol. Chem., Harv., 1907-09; Hamilton Kuhn Prof. of Biol. Chem., *ibid.*; Chem., M. G. H.; *Consult. Chem.*, *P. B. B. H.*

FREEMAN, ALEX R.

M.D., Emory, 1929; Interne, Wesley Mem. Hosp., Atlanta, Georgia, 1929-30; *Asst. Res. Phys.*, *P. B. B. H.*

FROTHINGHAM, CHANNING

A.B., Harv., 1902; M.D., *ibid.*, 1906; Med. H. O., B. C. H., 1906-07; Asst. Visit. Phys., Carney Hosp., O. P. D., Boston, 1908-12; Sec'y, Faculty of Med., Harv., 1908-13; Asst. in Theory and Practice of Physic, *ibid.*, 1908-12; Instr. in Med., *ibid.*, 1913-22; Lieut. Col., M. C., U. S. Army, June 1, 1917-Dec. 5, 1918; Asst. Prof. of Med., Harv., 1922-28; Assoc. Clin. Prof. of Med., Harv.; Chairman, Dept. of Med., *ibid.*; *Physician*, *P. B. B. H.*

FULTON, MARSHALL N.

Ph.B., Brown Univ., 1920; Rhodes Scholar, Oxford; A.B., Oxford Univ., 1922; M.D., Johns Hopkins, 1925; Vol. Asst. in Pathol., Johns Hopkins, Sept., 1925-Feb., 1926; *Med. H. O.*, *P. B. B. H.*, March 1, 1926-July 1, 1927; *Asst. Res. Phys.*, *ibid.*, Sept. 1, 1927-Sept. 1, 1929; *Res. Phys.*, *ibid.*, Sept. 1, 1929-Sept. 1, 1931; Jr. Asst. Visit. Phys., R. I. Hosp., Prov.; Asst. in Med., Harv.; Jr. Assoc. in Med., *P. B. B. H.*

GAISER, DAVID WESLEY

B.S., Whitman, 1924; M.D., Harv., 1931; *Surg. H. O.*, *P. B. B. H.*

GLENDY, ROBERT EARLE

B.S., Va. Military Inst., 1925; M.D., Univ. of Va., 1931; *Med. H. O.*, *P. B. B. H.*

GLENN, FRANK N.

M.D., Washington Univ., 1927; Med. Service, Strong Mem. Hosp., July, 1927-July, 1928; *Surg. H. O.*, *P. B. B. H.*, Jan. 1, 1929-May 1, 1930; *Asst. Res. Surg.*, *ibid.*, May 1, 1930-Apr. 15, 1931; *Interim Res. Surg.*, *ibid.*, July 13, 1931-Oct. 1, 1931; George Gorham Peters Trav. Fellow, 1931-32.

GRABFIELD, GUSTAVE PHILIP

A.B., Williams, 1912; M.D., Harv., 1915; Teaching Fellow, Dept. of Pharmacol., *ibid.*, 1915-16; *Med. H. O.*, *P. B. B. H.*, March 1, 1916-June 17, 1917; Capt., M. C., U. S. Army, 1917-19; Asst. in Roent., Univ. of Mich. Hosp., 1919-20; Instr. in Pharm., Harv., 1920-21; Asst. in Pharm., *ibid.*, 1921-22; Instr. in Pharm. and Asst.

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in Med., *ibid.*; *Jr. Assoc. in Med.*, *P. B. B. H.*, July 1, 1922-Nov. 12, 1925; *Assoc. in Med.*, *ibid.*

GRAY, CHARLES M.

A.B., Ohio Wesleyan Univ., 1926; M.D., Johns Hopkins, 1930; *Surg. H. O.*, *P. B. B. H.*

HAIN, RICHARD G.

B.S.; Lafayette; M.D., Harv., 1928; *Med. H. O.*, *P. B. B. H.*, March 1, 1929-July 1, 1930; *Asst. Res. Phys.*, *ibid.*, July 1, 1930-Sept. 1, 1931; *Res. Phys.*, *ibid.*

HALL, FRANCIS C.

Litt.B., Princeton, 1913; M.D., Harv., 1917; H. O., M. G. H., 1918; M.C., U. S. Army, 1918-19; Asst. Visit. Phys. and Visit. Phys. to O. P. D., M. G. H., 1920-22; *Assoc. in Med.*, *P. B. B. H.*, Apr. 14, 1921-Sept. 24, 1931; in practice, Boston, Mass.

HARE, HUGH F.

M.D., Harv., 1928; Interne, Univ. Hosp., Ann Arbor, Michigan, 1928-30; *H. O.*, *Roent.*, *P. B. B. H.*, July 1, 1930-July 1, 1931; *Asst. Res. Roent.*, *ibid.*

HERRING, JAMES B.

M.D., Univ. of Pa., 1922; Interne, Southern Pacific Hosp., 1922-23; Private practice, San Francisco, 1923-30; *Asst. Res. Surg.*, *P. B. B. H.*

HERTIG, ARTHUR T.

B.S., Univ. of Minn., 1928; M.D., Harv., 1930; *Pathol. H. O.*, *P. B. B. H.*, July 1, 1930-July 1, 1931; *Pathol.*, B. L. I.

HOEN, THOMAS I.

A.B., Johns Hopkins, 1924; M.D., *ibid.*, 1928; Fellow in Surg., *ibid.*; *Surg. H. O.*, *P. B. B. H.*, April 1, 1929-Aug. 1, 1930; *Asst. Res. Surg.*, *ibid.*, Oct. 1, 1930-Sept. 7, 1931.

HOMANS, JOHN

A.B., Harv., 1899; M.D., *ibid.*, 1903; House Pupil, M. G. H., 1903-04; Asst. in Hunterian Lab., Johns Hopkins, 1908-09; Vol. Asst. Surg., Children's Hosp., Boston, 1909-10; Surg., M. G. H., O. P. D., 1910-12; Asst. in Surg., Harv., 1910-13; Surg., Boston Dispensary, 1913-14; *Assoc. in Surg.*, Harv., 1914-15; Major, M. C., U. S. Army, 1918-19; Asst. Prof. Surg., Harv.; *Surg.*, *P. B. B. H.*

HORRAX, GILBERT

A.B., Williams, 1909; M.D., Johns Hopkins, 1913; *Surg. H. O.*, *P. B. B. H.*, July 1, 1913-Nov. 1, 1914; Arthur Tracy Cabot Fellow in charge of Lab. of Surg. Research, Harv., 1914-15; *Asst. Res. Surg.*, *P. B. B. H.*, 1915-16; Res. Surg., M. G. H., 1916-17; Major, M. C., U. S. Army, 1917-19; Asst. Prof. of Surg., and Secretary, Dept. of Surg., Harv.; Consult. Neurol. Surg., Children's Hosp., Boston; Consult. Neurol. Surg., N. E. Deaconess Hosp.; *Assoc. in*

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Neurol. Surg., P. B. B. II., Oct., 1919-March, 1928; Sr. Assoc. in Neurol. Surg., ibid.

HOUGHTON, JOHN D.

A.B., Harv., 1927; M.D., *ibid.*, 1931; *Pathol. H. O., P. B. B. H.*

HOWLAND, JOSEPH BRIGGS

M.D., Harv., 1896; Surg. House Pupil, M. G. H., 1896-97; Asst. Phys., State Hosp., Tewksbury, Massachusetts, 1898-1901; Asst. Supt., *ibid.*, 1901-02; Supt., State Colony for the Insane, Gardner, Massachusetts, 1902-07; Asst. Res. Phys., M. G. H., 1907-17; Asst. Administrator, *ibid.*, 1908-17; Act. Administrator and Res. Phys., *ibid.*, 1917-19; Pres., American Hosp. Assoc., 1919-20; Mem. Mass. State Bd. of Reg. of Nurses, 1919-24; Pres., N. E. Hosp. Assoc., 1921-22; Trustee, *ibid.*; Lecturer, Hosp. Adm., Harv.; Secretary, Harvard Cancer Comm.; Administrator, Collis P. Huntington Mem. Hosp. (Harv.); *Supt., P. B. B. H.*

HOYT, LYMAN HOWARD

B.S., Univ. of Iowa; M.D., *ibid.*, 1925; Med. Interne, Univ. Hosp., Iowa City, 1925-26; Asst. in Med., Harv.; *Asst. Res. Phys., P. B. B. H., Aug. 1, 1926-Nov. 1, 1927; Jr. Assoc. in Med., ibid.*

KANE, JOHN W.

B.S., Univ. of Notre Dame, 1926; M.D., Harv., 1930; *Surg. H. O., P. B. B. H.*

KENDALL, LEE GORDON

A.B., Harv., 1925; M.D., *ibid.*, 1930; *Surg. H. O., P. B. B. II., Oct. 1, 1930-Feb. 1, 1932; Asst. Res. Surg., ibid.*

KENT, HAROLD A.

H.D.S., 1919; Assoc. to Dr. Miner, Prof. of Oral Surg. and Dean, H.D.S.; *Dental Surg., P. B. B. H., 1922-29; Dental Surg., Forsyth Dental Infirmary; Instr. Oral Surg., H.D.S.; Dental Surg., N. E. Deaconess Hosp.; Consult. Dental Surg., P. B. B. H.*

LAWRENCE, JOHN H.

M.D., Harv., 1930; *Surg. H. O., P. B. B. II., Apr. 1, 1930-Aug. 1, 1931; Asst. Res. and Asst. in Med., Univ. of Rochester Med. Sch.*

LEGGE, ROBERT F.

M.D., C.M., McGill, 1930; *Surg. H. O., P. B. B. H., Jan. 1, 1931-Apr. 1, 1931.*

LEVINE, SAMUEL ALBERT

A.B., Harv., 1911; M.D., *ibid.*, 1914; *Assoc. in Med., P. B. B. H., July 1, 1914-July 1, 1915; Med. H. O., ibid., July 1, 1915-Nov. 1, 1916; Moseley Travelling Fellow, Harv., 1916-17; Asst., Rockefeller Inst. Hosp., New York, 1916-17; Capt., M. C., U. S. Army, 1917-19; Instr. in Med., Harv., 1919-30; Asst. Prof. of Med., Harv.; Consult. Phys., Boston Psychopathic Hosp., 1921-24; Phys. to Bos-*

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ton Disp., 1924-26; Visit Phys., Beth Israel Hosp.; *Assoc. in Med.*, *P. B. B. H.*, Aug., 1919-March, 1928; *Sr. Assoc. in Med.*, *ibid.*

LIGHT, RICHARD U.

Ph.B., Yale, 1924; M.D., Univ. of Mich., 1928; *Surg. H. O.*, *P. B. B. H.*, July 1, 1929-Nov. 1, 1930; Arthur Tracy Cabot Fellow, Harv.; *Jr. Assoc. in Surg.*, *P. B. B. H.*

MACDONALD, DONALD

B.A., Johns Hopkins, 1922; M.D., *ibid.*, 1926; *Jr. Assoc. in Oto-Laryngology*, *P. B. B. H.*

MACPHERSON, DONALD JOHN

B.S., Univ. of Rochester, 1911; M.D., Harv., 1915; *Med. H. O.*, *P. B. B. H.*, July 1, 1915-Nov. 1, 1916; *Asst. Res. Phys.*, *ibid.*, Nov., 1916-June 22, 1917; Capt., M.C., U. S. Army, 1917-19; *Assoc. in Med.*, *P. B. B. H.*

MAHONEY, WILLIAM DEG.

A.B., Holy Cross, 1925; M.D., Harv., 1929; *Surg. H. O.*, *P. B. B. H.*, Oct. 1, 1929-Feb. 1, 1931; *Asst. Res. Surg.*, *ibid.*, Apr. 1, 1931-Apr. 1, 1932.

MARKS, JOSEPH H.

B.A., Univ. of Wis., 1925; M.A., *ibid.*, 1926; M.D., Harv., 1929; *Med. H. O.*, *P. B. B. H.*, Mar. 1, 1930-July 1, 1931; *H. O., Roent.*, *ibid.*

MARQUIS, FRED M.

B.A., Univ. of Iowa, 1927; M.D., *ibid.*, 1931; *Pathol. H. O.*, *P. B. B. H.*, July 1, 1931-Jan. 1, 1932.

MCLEAN, ARTHUR JOHN

A.B., Reed Coll., Portland, Oregon, 1921; M.D., Johns Hopkins, 1925; *Surg. H. O.*, *P. B. B. H.*, July 1, 1925-Nov. 1, 1926; *Assoc. in Surg.*, *ibid.*, Jan. 10-Sept. 23, 1927; Arthur Tracy Cabot Fellow, Harv., 1926-27; *Asst. Res. Surg.*, *P. B. B. H.*, Sept., 1927-June, 1929; *Act. Res. Surg.*, *ibid.*, June-Sept., 1929; George Gorham Peters Traveling Fellow, 1929-30; *Res. Surg.*, *P. B. B. H.*, Oct. 1, 1930-June 1, 1931; Instr. in Surg., Univ. of Oregon Med. Sch.; Instr. in Neuropathol., *ibid.*; in practice, Portland, Oregon.

MCLESTER, JAMES BOWRON

A.B., Univ. of Ala., 1926; M.D., Harv., 1930; *Med. H. O.*, *P. B. B. H.*, Mar. 1, 1931-Mar. 1, 1932.

MEAGHER, RICHARD

Ph.B., Yale, 1921; M.D., Cornell, 1927; *Pathol. H. O.*, *P. B. B. H.*, Sept. 1, 1927-Jan. 1, 1928; *Surg. H. O.*, *ibid.*, April 1, 1928-Aug. 1, 1929; *Asst. Res. Surg.*, *ibid.*, Aug. 1, 1929-May 1, 1930; *Jr. Assoc. in Surg.*, *ibid.*, May-Oct., 1930; *Asst. Res. Surg.*, *ibid.*, Oct. 1, 1930-June 1, 1931; Arthur Tracy Cabot Fellow in Surg., Harv., 1930; *Res. Surg.*, *P. B. B. H.*

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MIDDLETON, RICHARD

M.D., Harv., 1927; Rotating Internship, Philadelphia; Res. Surg., Memorial Hosp., Worcester; *Asst. Res. Surg., P. B. B. H.*, Sept. 15, 1930-July 15, 1931; in practice, Salt Lake City, Utah.

MIDELFART, CHRISTIAN FREDRIK

A.B., Yale; M.D., Johns Hopkins, 1931; *Med. H. O., P. B. B. H.*

MIDELFART, PETER A. H.

A.B., Yale, 1927; M.D., Harv., 1931; *Med. H. O., P. B. B. H.*

MINOT, GEORGE R.

A.B., Harv., 1908; M.D., *ibid.*, 1912; S.D., Harv., 1928; Honorary Fellow, Royal College of Phys., Edinburgh, 1931; Correspondent étranger, Royal Acad. of Med., Belgium, 1931; Med. H. O. East Med. Serv., M. G. H., July, 1912-Dec., 1913; Asst. Res. Phys., Johns Hopkins, 1913-14; Asst. in Med., Johns Hopkins, 1914-15; Special Research Worker, Johns Hopkins, 1914-15; Asst. in Med., Harv., 1915-18; Asst. in Med., M. G. H., 1915-18; Asst. in Chem., Harv., 1915-16; Dalton Scholar, M. G. H., 1916-20; Visit. Phys., St. Luke's Convalescent Home, Boston, 1916-18; Assoc. in Med., M. G. H., 1918-23; Asst. Consult. Phys., Huntington Mem. Hosp., 1917-19; Phys., *ibid.*, 1919-23; Contract Surg., U. S. A., Sept., 1917, and Sept. 15-Nov. 10, 1918; Consult. Phys., Mass. Eye and Ear Infirmary, 1922-24; Phys. to Special Clinic, M. G. H., 1923-25; Asst. Prof. of Med., Harv., 1918-27; Clin. Prof. of Med., *ibid.*, 1927-28; Phys. and Chief of Med. Labs., Huntington Mem. Hosp.; *Assoc. in Med., P. B. B. H.*, Feb. 12, 1925-March 8, 1928; Member, Board of Consultation, M. G. H.; Director, Thorndike Mem. Lab., Second and Fourth Medical Services (Harvard) Boston City Hospital; Visit. Phys., *ibid.*; Consult. Phys., Beth Israel Hosp.; Prof. of Med., Harv.; *Consult. Phys., P. B. B. H.*

MONROE, ROBERT THORNHILL

A.B., Univ. of Mich., 1918; M.D., *ibid.*, 1924; *Med. H. O., P. B. B. H.*, July 1, 1924-Nov. 1, 1925; *Asst. Res. Phys., ibid.*, Nov. 1, 1925-Sept. 1, 1926; Asst. in Med., Harv., 1926-28; Instr. in Med., *ibid.*; *Jr. Assoc. in Med., P. B. B. H.*

MURPHY, WILLIAM P.

A.B., Univ. of Ore., 1914; M.D., Harv., 1922, as of 1920; H. O., R. I. Hosp., 1920-22; *Asst. Res. Phys., P. B. B. H.*, 1922-23; Asst. in Med., Harv., 1924-28; Instr. in Med., *ibid.*; *Jr. Assoc. in Med., P. B. B. H.*, July 10, 1923-May 10, 1926; *Assoc. in Med., ibid.*

MYERS, GORDON

A.B., Univ. of Mich., 1924; M.D., *ibid.*, 1927; Interne; Asst. Res. in Med., and Res., Receiving Hosp., Detroit, 1927-30; *Asst. Res. Phys., P. B. B. H.*

NEWTON, FRANCIS CHANDLER

A.B., Amherst, 1915; M.D., Harv., 1919; *Surg. H. O., P. B. B. H.*, March 15, 1919-July 1, 1920; *Asst. Res. Surg., ibid.*, July 1, 1920-

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Sept. 1, 1921; Res. Surg., *ibid.*, Sept. 1, 1921-July 1, 1923; Jr. Assoc. in Surg., *ibid.*, July 1-Sept. 15, 1923; Asst. in Surg., Harv., 1920-23, Moseley Trav. Fellow, *ibid.*, 1923-24; Vol. Asst., Phys. Inst., Berne, Switzerland, 1923-24; Instr. in Surg., Harv., 1924-28; Faculty Instr. in Surg., *ibid.*; Assoc. in Surg., P. B. B. H., 1924-28; Sr. Assoc. in Surg., *ibid.*

NEWTON, HARLAN FAY

A.B., Yale, 1916; M.D., Harv., 1920; Pathol. H. O., B. C. H., 1920-21; *Surg. H. O.*, *P. B. B. H.*, Nov. 1, 1921-March 1, 1923; Asst. Res. Surg., *ibid.*, Oct. 1, 1923-July 1, 1924; Res. Surg., *ibid.*, July 1, 1924-Oct. 1, 1926; Austin Teach. Fellow in Surg., Harv., 1924-27; Workman Fellow in Physiol., *ibid.*, 1926-27; *Moseley and P. B. B. H. Travel. Fellow in Surg.*, 1927-28; Asst., first Med. Clin., Hamburg-Eppendorf, Germany, 1927-28; Austin Teach. Fellow in Surg., Harv., 1928-31; Faculty Instr. in Surg., *ibid.*; Jr. Assoc. in Surg., *P. B. B. H.*.

NORFLEET, JR., WILLIAM J.

D.M.D., Harv., 1931; *Dental Interne, P. B. B. H.*

O'HARE, JAMES PATRICK

A.B., Harv., 1908; M.D., *ibid.*, 1911; Med. H. O., B. C. H., So. Dept., 1911; Med. H. O., Carney Hosp., Boston, 1912-13; Fellow in Med., Harv., 1913-15; Asst. Visit. Phys., Carney Hosp., 1913-15; Asst. Visit. Phys., B. C. H., 1915-17; Asst. in Med., Harv., 1915-18; Assoc. in Med., *P. B. B. H.*, July 1, 1915-Aug. 1, 1917; Act. Phys., *ibid.*, Aug. 1, 1917-Feb. 1, 1918; Assoc. in Med., *ibid.*, Feb. 1-April 1, 1918; Act. Phys., *ibid.*, April 1, 1918-Jan. 1, 1919; Assoc. in Med., *ibid.*, Jan. 1, 1919-March 8, 1928; Instr. in Med., Harv.; Asst. Prof. of Med., *ibid.*; Sr. Assoc. in Med., *P. B. B. H.*

OSGOOD, RUDOLF

S.B., Harv., 1924; M.D., Univ. of Chicago, 1929; *Pathol. H. O.*, *P. B. B. H.*, July 1, 1929-July 1, 1930; Res. Pathol., Children's Hosp., Boston, 1930-31; Res. Pathol., *P. B. B. H.*

PARSONS, ROBERT J.

A.B., Syracuse Univ., 1928; M.D., *ibid.*, 1931; *Med. H. O.*, *P. B. B. H.*

PICKWICK, ERSKINE R.

M.D., Tufts, 1924; Interne, Newton Hosp., 1924-25; Asst. Surg., Hood Rubber Co. (Hosp.), Watertown, Mass., 1925-27; Asst. Res. (Exec.) Worcester City Hosp., 1927-29; *H. O. Roent.*, *P. B. B. H.*, July 1, 1929-July 1, 1930; Asst. Res. in Roent., *ibid.*, July 1, 1930-July 1, 1931.

POKORNY, NORMAN A.

A.B., Marquette Univ., 1925; M.D., Johns Hopkins, 1929; *Med. H. O.*, *P. B. B. H.*, Mar. 1, 1930-July 1, 1931.

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PURKS, WILLIAM K.

B.S., Emory Univ., 1926; M.D., *ibid.*, 1929; Interne, Grady Hosp., Atlanta, 1929-30; Med. H. O., *ibid.*, 1930-31; Asst. Res. Phys., P. B. B. H.

QUINBY, WILLIAM CARTER

A.B., Harv., 1899; M.D., *ibid.*, 1902; House Pupil, M. G. H., 1902-03; Asst. G. U. Surg., Boston Disp., 1907-09; Asst. Surg., N. E. Baptist Hosp., Boston, 1908-14; in charge of Experimental Surg., Brady Clin., J. H. H., 1914-16; Assoc. in Urol., *ibid.*, 1915-16; Clin. Prof., G. U. Surg., Harv.; *Urol. Surg.*, P. B. B. H.

RAY, BRONSON SANDS

B.S., Franklin College, 1924; M.D., Northwestern, 1928; Interne, Passavant Memorial Hospital, Chicago, Ill., and Wesley Memorial Hosp., Chicago, Ill., 1928-29; *Surg. H. O.*, P. B. B. H., Jan. 1, 1930-May 1, 1931; Asst. Res. Surg., *ibid.*

RICHARDS, LYMAN G.

A.B., Harv., 1916; M.D., *ibid.*, 1919; in Smyrna with Near East Relief, 1919; Surg. H. O., St. Luke's Hosp., New York, 1920-22; Mass. Eye and Ear Infirmary, Ear, Nose and Throat Serv., 1922-24; Chief in Otolaryngology, Children's Hosp., Boston; Assoc. in Otolaryngology, New England Deaconess Hosp.; Consultant in Bronchoscopy, Union Hosp., Fall River; Permanent Staff, Baptist Hosp., Boston; Assoc. in Otolaryngology, P. B. B. H., June 12, 1924-Oct. 9, 1930; Consultant in Otolaryngology, *ibid.*

SALLEY, S. MARION

B.S., Emory Univ., Atlanta, 1924; M.D., *ibid.*, 1928; Interne, Grady Hosp., July 1, 1928-July 1, 1929; Asst. Res. Phys., P. B. B. H., Aug. 1, 1929-July 1, 1931.

SCHNITKER, MAURICE A.

B.S., Univ. of Mich., 1928; M.D., *ibid.*, 1931; *Med. H. O.*, P. B. B. H.

SCHULZ, REUBEN Z.

A.B., Central Wesleyan Coll., Warrenton, Missouri, 1921; M.A., Univ. of Nebraska, 1926; M.D., *ibid.*, 1927; Fellow and Asst., Dept. of Anat., *ibid.*, 1924-25; Asst. in Bact. and Immunology, *ibid.*, 1925-26; *Pathol. H. O.*, P. B. B. H., July 1, 1927-July 1, 1928; Res. Pathol., Children's Hosp., 1928-29; Res. Pathol., P. B. B. H., Sept. 1, 1929-Sept. 1, 1931.

SHAMBAUGH, PHILIP

A.B., Amherst, 1926; M.D., Harv., 1930; *Med. H. O.*, P. B. B. H., Nov. 1, 1930-Mar. 1, 1932; *Surg. H. O.*, P. B. B. H.

SHILLITO, FREDERICK H.

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SOSMAN, MERRILL C.

A.B., Univ. of Wis., 1913; M.D., Johns Hopkins, 1917; Res. Phys., Soldiers' Home Hosp., Washington, D. C., 1917-18; entered U. S. A., M. C.; Army Med. Sch., X-ray Dept., Walter Reed Hosp., 1919-21; X-ray Dept., M. G. H., 1921; Consult. Roent., C. P. Huntington Mem. Hosp.; Consult. Roent., Peabody Home for Crippled Children; Assoc. in Roent., Children's Hosp.; *Roentgenologist, P. B. B. H.*

STEEL, SELWYN

M.D., Yale, 1930; *Med. H. O., P. B. B. H., Mar. 1, 1931-July 1, 1932.*

STRAYER, LUTHER M.

A.B., Princeton, 1926; M.D., Harv., 1930; *Surg. H. O., P. B. B. H., July 1, 1930-Nov. 1, 1931;* Jr. Fellow in Surg., Presbyterian Hosp., N. Y.

STROCK, MOSES SOLOMON

D.M.D., Harv., 1923; Asst. in Extract. and Oral Surg., Harv., 1923-25; Instr. in Extract. and Oral Surg., *ibid.*, 1925-30; Anesthetist, Forsyth Dental Infirmary, 1925-30; Instr. in Oral Surg., Harv.; Asst. Dental Surg., M. G. H.; *Dental Surg., P. B. B. H.*

THOMPSON, KENNETH WADE

A.B., Leland Stanford, 1926; M.D., Harv., 1929; *Surg. H. O., P. B. B. H., Jan. 1, 1930-May 1, 1931;* Fellow in Surg. Research, Harv.; Asst. Res. Surg., P. B. B. H.

TOLLMAN, JAMES PERRY

B.S., Univ. of Neb., 1927; M.D., *ibid.*, 1929; *Med. H. O., P. B. B. H., July 1, 1929-Nov. 1, 1930;* *Pathol. H. O., ibid., Jan. 1, 1931-July 15, 1931;* Asst. Prof. Pathol., Univ. of Nebraska.

TROPPOLI, DANIEL V.

A.B., A.M., Brown Univ., 1923;; M.D., Harv., 1927; Neurol. H. O., M. G. H., June, 1927-Jan., 1928; *Med. H. O., P. B. B. H., March 1, 1928-July 1, 1929;* Res. Phys., R. I. Hosp., Aug., 1929-Oct., 1930; *Surg. H. O., P. B. B. H.*

VAN AUKEN, HOWARD A.

A.B., Yankton Coll., 1925; M.D., Univ. of Mich., 1931; *Med. H. O., P. B. B. H.*

VOGT, EDWARD C.

M.D., Univ. of Iowa, 1923; Interne, St. Vincent's Hosp., Toledo, Ohio, 1923-24; *H. O., X-ray Dept., P. B. B. H., Sept. 12, 1924-March 1, 1925;* Asst. Res. in Roent., *ibid.*, March 1-Sept., 1925; Res. in Roent., New Haven Hosp., Oct., 1925-July, 1926; Roent., Children's Hosp., Boston; Roent., Huntington Mem. Hosp., 1928; Assoc. in Roent., P. B. B. H.

WALCOTT, CHARLES F.

A.B., Harv., 1926; M.D., *ibid.*, 1931; *Med. H. O., P. B. B. H.*

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WALKER, ISAAC CHANDLER

A.B., Johns Hopkins, 1905; M.D., *ibid.*, 1909; Grad. Stud., Lab. of Theory and Practice of Physic, Harv., 1910-11; Med. H. O., Carney Hosp., Boston, 1910-11; Lect. on Clin. Microscopy and Phys. Diag., Univ. of Iowa, 1911-12; Stud. of Prof. Morawitz, Freiburg, Germany, 1912; Research, Rockefeller Hosp., New York, 1912; *Sr. Med. H. O., P. B. B. H.*, Nov. 1, 1912-March 1, 1913; *Asst. Res. Phys.*, *ibid.*, March 1, 1913-March 1, 1914; *Act. Res. Phys.*, *ibid.*, March 1, 1914-Jan. 1, 1915; *Asst. Res. Phys.*, *ibid.*, Jan. 1, 1915-March 1, 1915 (*granted leave of absence from March 1, 1915-Sept. 1, 1915*); Med. Chief, Hosp. Ab. 32bis Passy Yonne, France, 1915; Asst. in Pharmacol., Harv.; Alumni Asst. in Med., *ibid.*; *Act. Phys.*, *P. B. B. H.*, Aug. 1, 1917-Feb. 1, 1918, and April 1, 1918-Dec. 16, 1918; Asst. Prof. of Med., Harv., 1918-19; *Assoc. in Med.*, *P. B. B. H.*

WILHELM, NORBERT A.

B.S., St. Louis Univ., 1922; M.D., *ibid.*, 1925; Interne, Mercy Hosp., Toledo, Ohio, 1925-26; Chief Res. Phys., Lucas Co. Hosp., Toledo, Ohio, 1926-27; Asst. Plantation Surg., Estates of Central Aguirre, Porto Rico, 1927-29; Asst., Div. of Neuropsychiatry, Henry Ford Hosp., 1929-30; *2nd Asst. Supt., P. B. B. H.*

WOLBACH, SIMEON BURT

Stud., Harv., 2 yrs.; M.D., *ibid.*, 1903; 2nd Asst. in Pathol., B. C. H., 1903-04; 1st Asst. in Pathol., *ibid.*, 1904-05; 2nd Asst. Visit. Pathol., *ibid.*, 1905-08; Pathol., Long Island Hosp., Boston, 1905-08; Pathol., Boston Floating Hosp., 1905-08; Pathol., Mass. Infants' Asylum, 1905-08; Asst. in Pathol., Harv., 1905-06; Instr. in Pathol., *ibid.*, 1906-08; Adjunct Prof. of Pathol. and Bacteriol., Albany Med. Coll., 1908-09; Director, Bender Hygienic Lab., Albany, New York, 1908-09; Pathol., Albany City Hosp., 1908-09; Pathol., St. Peter's Hosp., Albany, 1908-09; Pathol., St. Margaret's House, Albany, 1908-09; Lecturer in Pathol., McGill Univ., 1909-11; Director, Histol. Lab., *ibid.*, 1909-11; Director, Montreal Gen. Hosp. Lab., 1909-11; Asst. Prof. of Bacteriol., Harv., 1910-14; Assoc. Prof. of Bacteriol., *ibid.*, 1914-16; Pathol., Children's Hosp., Boston; in charge of Typhus Research Hosp., Poland, Jan.-Aug., 1920; Fellow, Am. Acad. of Arts and Sciences, 1914; Visit. Pathol., Children's Hosp., Boston, 1915; Corr. Mem. Société de Pathologie Exotique, Paris; Commander, Order of Polonia Restituta; Shattuck Prof. Pathol. Anat., Harv.; *Pathologist*, *P. B. B. H.*

WOON, NATHANIEL KNIGHT

A.B., Harv., 1897; M.D., *ibid.*, 1901; H. O., B. C. H., 1902-04; H. O., Boston Lying-In Hosp., 1904; Visit. Phys., Carney Hosp., O. P. D., 1907-12; Visit. Phys., Boston Consumptives' Hosp., O. P. D., 1909-17; Phys., Boston Disp., 1912-18; *Assoc. in Med.*, *P. B. B. H.*

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WOOLSTON, STEPHEN S.

B.S., Princeton, 1924; M.D., Univ. of Pa., 1929; Interne, Pennsylvania Hosp., 1929; Interne, Protestant Episcopal Hosp., Philadelphia, 1929-31; *Asst. Res. Surg., P. B. B. H.*

WOSIKA, PAUL H.

B.S., M.D., Northwestern Univ., 1931; *Asst. Res. Phys., P. B. B. H.*

YOUNG, RICHARD HART

B.S., Univ. of Chicago, 1926; M.A., Univ. of Nebraska, 1930; M.D., *ibid.*, 1930; *Med. H. O., P. B. B. H., July 1, 1930-Nov. 1, 1931*; Neurol. H. O., Bellevue Hosp., N. Y.

YOUNGE, PAUL A.

A.B., Univ. of Wis., 1927; M.D., Harv., 1931; *Surg. H. O., P. B. B. H.*

ZINSSER, HANS

A.B., Columbia, 1899; A.M., M.D., *ibid.*, 1903; Sc.D., Hon. Caus., *ibid.*, 1929; Sc.D. Hon. Causa., Western Reserve Univ., 1931; House Staff, Roosevelt Hosp., 1903-05; Bacteriologist, *ibid.*, 1905-06; Asst. Bacteriologist, Columbia Univ., 1905-06; Asst. Pathol., St. Luke's Hosp., 1907-10; Instr. in Bacteriology, Columbia, 1908-10; Assoc. Prof. Bact., Leland Stanford Univ., 1910-11; Prof. of Bact., *ibid.*, 1911-13; Prof. Bact., Columbia, 1913-23; Bacteriologist, Presbyterian Hosp., 1913-23; Consult. Bact., Children's Hosp., Boston; Professor of Bacteriology, Harv.; *Consult. Bacteriologist, P. B. B. H.*

Register of Former Members of the Staff

ADAMS, FRANK DENNETTE

Litt.B., Princeton, 1913; M.D., Harv., 1917; Med. H. O., M. G. H., 1917-18; 1st Lieut., M. C., U. S. Army, 1918-19; *Pathol. H. O.*, *P. B. B. H.*, Oct. 1, 1919-March 15, 1920; *Act. Res. Pathol.*, *ibid.*, March 15-July 1, 1920; Res. Phys., B. C. H., 1920-22; Lect. in Med., Univ. of N. C., Extension Div., 1922 and 1923; H. O., So. Dept., B. C. H., 1922; Assoc. in Therapeutics, George Washington Univ.; Instr. in Med., Georgetown Univ., 1923; Assoc. Phys., M. G. H.; Asst. in Med., Harv., 1923-29; Instr. in Med., Harv.; in practice, Boston.

ALEXANDER, HARRY LOUIS

A.B., Williams, 1910; M.D., Columbia, 1914; H. O., Presbyterian Hosp., New York, 1914-16; *Asst. Res. Phys.*, *P. B. B. H.*, Sept. 15, 1916-July 6, 1917; Major, M. C., U. S. Army; Instr. in Med., Cornell, 1919-24; Asst. Adjunct Attend. Phys., 2nd Med. Div., Bellevue Hosp., New York, 1919-24; Attend. Phys. and Visit. *Pathol.*, Overlook Hosp., Summit, New Jersey, 1920-24; Chief of Asthma Dept., Cornell Pay Clin., New York, 1921-24; Editor, *Journal of Allergy*; Assoc. Prof. Med., Washington Univ., and Assoc. Phys., Barnes Hosp., and St. Louis Maternity Hosp., St. Louis.

ALT, HOWARD L.

B.S., Northwestern Univ., 1923; M.D., *ibid.*, 1924; H. O. in med. and surg., *ibid.*, July, 1923-July, 1925; *Asst. Res. Phys.*, *P. B. B. H.*, July 1, 1925-Sept. 1, 1927; Teaching Fellow in Med., Harv.; *Res. Phys.*, *P. B. B. H.*, Sept. 1, 1927-Sept. 1, 1929; Asst. in Kaiser Wilhelm Inst. für Biologie, Berlin, Prof. Warburg, Oct., 1929-April, 1930; Asst. in Med. Clin., Univ. of Würburz, Prof. Grafe, May-Aug., 1930; Assoc. in Med. and Instr. in Chemistry, Northwestern Univ. Med. Sch., and Passavant Mem. Hosp., Chicago.

ALTNOW, HUGO OSKAR

M.D., Univ. of Mich., 1907; Interne and Asst. Surg., Northern Pac. Ry. Hosp., Brainerd, Minnesota, 1907-09; Surg., Northern Pac. Ry., and Private Practice, Mandan, North Dakota, 1909-24; Visit. Phys., Mandan Deaconess Hosp., 1919-24; Grad. Asst. in Neurol., O. P. D., M. G. H., May 1-July 1, 1924; Jr. Assoc. in Med., *P. B. B. H.*, July 11, 1924-July 1, 1925; in practice, Minneapolis, Minnesota.

ARMSTRONG, WILBER P.

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ATWATER, REGINALD MYERS

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1, 1918-April 15, 1919; Dept. of Hygiene, Hunan-Yale College of Med., Changsha, Hunan, China, 1921-25; Inst. Epidemiology, Harv. Sch. Public Health, 1925-27; Comm. of Health, Cattaraugus Co. Dept. of Health, Olean, New York.

BAGLEY, JR., CHARLES

M.D., Univ. of Md., 1904; A.B., Loyola, 1911; Asst. Res. Phys., Univ. Hosp., Baltimore, 1904-05; Asst. Res. Surg., *ibid.*, 1905-06; Med. Supt., Hebrew Hosp., Baltimore, 1906-10; *Asst. Res. Surg.*, *P. B. B. H.*, Jan. 1, 1913-Jan. 1, 1914; Major, M. C., U. S. Army, 1917-19; Visit. Surg. Sinai Hosp., Church Home and Infir., St. Agnes' Hosp., Bon Secours Hosp.; W. Baltimore Gen. Hosp., Maryland Gen. Hosp., and Union Mem. Hosp., Baltimore; Consult. Surg., Baltimore Eye, Ear and Throat Charity Hosp., etc.; Assoc in Exper. Neurol., Johns Hopkins; Asst. Psychiatrist, J. H. H., Baltimore; Consult. Neuro-Surgeon, U. S. P. H. S.; in practice, Baltimore.

BAILEY, PERCIVAL

B.S., Univ. of Chicago, 1914; Ph.D., *ibid.*, 1918; M.D., Northwestern Univ., 1918; Asst. in Embryology, Univ. of Chicago, 1914; Asst. in Anatomy, *ibid.*, 1914-15; Asst. in Anatomy, Northwestern Univ., 1915-17; Assoc. in Anat., Univ. of Chicago, 1917-18; Surg. H. O., Mercy Hosp., Chicago, 1918-19; *Asst. Res. Surg.*, *P. B. B. H.*, April 1-Dec. 19, 1919; Res. Phys., Neurol. Service, Cook County Hosp., Chicago, 1920; Res. Phys., Psychopathic Hosp., Chicago, 1920; Arthur Tracy Cabot Fellow, Harv., 1920-21; *Assoc. in Surg.*, *P. B. B. H.*, Sept. 1, 1920-July 1, 1921; Asst. Etranger à la Salpêtrière, service du Prof. Pierre Marie, 1921-22; *Jr. Assoc. in Surg.*, *P. B. B. H.*, July, 1922-Sept., 1923; Asst. Etranger à l'hospice Sainte Anne, service du Prof. Henri Claude, 1925-26; Instr. in Surg., Harv.; *Assoc. in Surg.*, *P. B. B. H.*, 1926-28; Prof. Neurol., Univ. of Chicago.

BALDWIN, LOUIS B.

Litt. B., Princeton, 1915; M.D., Columbia, 1919; Interne, Presbyterian Hosp., New York, April, 1919-July, 1920; Interne, Sloane Hosp., New York, Sept., 1920-Dec., 1920; Assoc. in Med., Presbyterian Hosp., New York, Jan., 1921-July, 1921; *Asst. Res. Phys. (acting)* *P. B. B. H.*, Dec. 20, 1921-Feb. 1, 1922; Asst. Prof. and Instr. in Med., Strong Mem. Hosp., Rochester, N. Y.; Phys., Rochester Gen. Hosp., Rochester, N. Y.; Grunow Clin., Phoenix, Ariz.

BALYEAT, RAY MORTON

A.B., Oklahoma Univ., 1912; B.S., *ibid.*, 1915; M.A., *ibid.*, 1916; M.D., *ibid.*, 1918; *Med. H. O.*, *P. B. B. H.*, Nov. 1, 1916-Oct. 1, 1919; Instr. in Med. and Allergy, Univ. of Oklahoma Med. School; Consult. Phys., St. Anthony's Hosp. and State Univ. Hosp., Oklahoma City; in practice, Oklahoma City, Oklahoma.

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BARKER, M. HERBERT

B.S., Univ. of Chicago, 1923; M.S., Northwestern Univ., 1930; M.D., Rush Med. College, 1925; H. O., Wesley Memorial Hosp., 1925-27; *Med. H. O., P. B. B. H.*, Jan. 1-March 1, 1927; *Asst. Res. Phys.*, *ibid.*, July 1, 1927-July 1, 1929; Res. Phys., Passavant Mem. Hosp., Chicago; Consult. in Cardio-Renal Diseases, Hines Mem. Hosp.; Director, Renal Clin., Northwestern Univ. Med. Clin.; Assoc. in Med., Northwestern Univ.

BARR, JOSEPH SEATON

B.S., College of Wooster, Wooster, Ohio, 1922; M.D., Harv., 1926; Stud. H. O., Huntington Mem. Hosp., 1924-25; *Surg. H. O., P. B. B. H.*, July 1, 1926-Nov. 1, 1927; P. G. course, Orth. Surg., Children's Hosp. and M. G. H., Jan., 1928-Sept., 1929; Asst. Orthopedic Surg., M. G. H.; Asst. Surg., N. E. Peabody Home for Crippled Children; Asst. in Orthopedic Surg., Harv.

BARROW, WILLIAM HULBERT

A.B., Harv., 1908; M.D., *ibid.*, 1916; *Med. H. O., P. B. B. H.*, Nov. 1, 1916-June 17, 1917; Lieut. and Capt., M. C., U. S. Army, 1917-21; Med. Advisor, Middlesex School, Concord, Massachusetts, 1921-22; Med. Advisor and Prof. of Phys. Education, Stanford Univ., 1922-27; Asst. Clin. Prof. Med., *ibid.*, 1926-27; Assoc. Clin. Prof. Med., *ibid.*, 1927-28; Staff member, Mercy and Scripps Memorial Hospitals; Member, Visiting and Consult. Staff, San Diego Co. Hosp.; in practice, San Diego, Calif.

BECK, CLAUDE S.

A.B., Franklin and Marshall College, 1916; Grad. Sch., Univ. of Pittsburgh, 1916-17; M.D., Johns Hopkins, 1921; Res. H. O., J. H. H., 1921-22; Asst. Res. Surg., New Haven Hosp., 1922-23; Arthur Tracy Cabot Fellow, Harv., and *Assoc. in Surg., P. B. B. H.*, 1923-24; in charge Surg. Lab., Western Reserve Univ., Cleveland, Ohio, 1924-25; Instr. in Surg., Western Reserve Med. School; Res. Surg., Lakeside Hosp., Cleveland, 1925-26; *Asst. Res. Surg., P. B. B. H.*, April 9-June, 1927; Instr. in Surg., Western Reserve Univ. School of Med.; Asst. Surg., Lakeside Hosp., 1927-28; Assoc. Surg., *ibid.*; Asst. Prof. Surg., Western Reserve Univ. Sch. of Med.

BELT, A. ELMER

M.D., Univ. of Cal., 1920; Fellow, Hooper Research Laboratories, *ibid.*; Asst. in Urol. Surg., Univ. Hosp., for a year; *Asst. Res. Surg., P. B. B. H.*, July 1, 1922-July 1, 1923; in practice, Los Angeles.

BENET, GEORGE

Student for 3 yrs., Univ. of S. C., and Univ. of Va.; M. D., Harv., 1913; *Med. H. O., P. B. B. H.*, June 1, 1913-July 1, 1914; Sr. Surg. H. O., St. Luke's Hosp., Chicago, July 1, 1914-Jan. 1, 1915; Lab. Asst., Harv. Unit, Am. Ambulance Hosp., Paris, France, 1915;

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Surg. at French Hosp. near Annel, 1915-16; Capt. and Asst. Surg., 2nd Harv. Unit, B. E. F., France, 1916; Res. Phys., Collis P. Huntington Mem. Hosp., 1916-17; Surg., Fulham Military Hosp., London, England, 1917; M. R. C., U. S. Army, 1917-18; Capt., M. C., U. S. Army; Battalion Med. Officer to 16th Devons Infantry Reg., (British) 1918; Awarded British Military Cross, 1918; Asst. Visit. Surg., Richland Co. Hosp.; Chief Surg., South Carolina State Hosp.; Attend. Surg., Newberry Co. Hosp.; Assoc. Staff, Marlboro Co. Hosp.; in practice, Columbia, S. C.

BENNETT, GRANVILLE A.

B.S., Univ. of Iowa, 1923; M.D., *ibid.*, 1925; Surg. Interne, Iowa State Univ. Hosp., 1925-26; Clin. Asst. Pathol., Bacteriol. and Surgery, 1926-27; *Res. Pathol.*, *P. B. B. H.*, Sept. 1, 1927-Sept. 1, 1929; Instr. of Pathol., Harv.

BENTON, ROY WILMOT

Ph.B., Brown Univ., 1918; M.D., Harv., 1922; *Med. H. O.*, *P. B. B. H.*, Nov. 1, 1922-March 1, 1924; H. O., New York Nursery and Child's Hosp., 1924-25; H. O., Providence City Hosp., 1925; Resident Phys., *ibid.*, 1925-26; Asst. Supt., *ibid.*, 1926-28; Asst. Director, A. O. Smith Diag. Clin., Milwaukee, Wis.

BERGLUND, HILDING

M.D., Univ. of Stockholm, 1916; S.D., *ibid.*, 1920; Asst. Phys., Stockholm Hosp., 1915-19; Asst. Prof. Int. Med., Univ. of Stockholm, 1920; *Asst. Res. Phys.*, *P. B. B. H.*, July 5, 1921-Sept. 1, 1923; Asst. Prof. Medicine, Harv.; *Assoc. in Med.*, *P. B. B. H.*, Sept. 1, 1923-Nov. 1, 1925; Prof. of Med., Univ. of Minn., and Chief, Dept. of Med., Univ. Hosp.

BERRY, FRANK BROWN

A.B., Harv., 1914; M.D., *ibid.*, 1917; Pathol. H. O., B. C. H., July-Dec., 1917; *Med. H. O.*, *P. B. B. H.*, Jan. 9-March 1, 1918; 1st Lieut. and Capt., M. C., U. S. Army, 1918-19; 1st Asst. Pathol., B. C. H., 1919-20; Surg. H. O., Presbyterian Hosp., New York, 1920-21; Practicing Med., Providence, Rhode Island, 1921-23; Res. Surg., Bellevue Hosp., New York, 1923-24; Instr. in Surg., Columbia; *Assoc. in Surg.*, *ibid.*; Adjunct Attend. Surg., Bellevue Hosp.; Consult. Surg., Nyack Hosp.; in practice, New York City.

BIRD, CLARENCE EDWARD

A.B., Univ. of Cal., 1920; M.D., Harv., 1923; Interne, Indian Harbor Hosp., Labrador, with Grenfell Mission, 1922; *Surg. H. O.*, *P. B. B. H.*, July 1, 1923-Nov. 1, 1924; Asst. in Surg. and Pathol., Yale, 1924-25; *Asst. Res. Surg.*, *P. B. B. H.*, July 1, 1925-Oct. 1, 1926; *Res. Surg.*, *ibid.*, Oct. 1, 1926-Sept. 12, 1928; Asst. Prof. Surg., Univ. of Southern Calif., 1930-31; Prof. of Surg., Univ. of Louisville; Surgeon-in-Chief, Louisville City Hosp.

BLAKE, FRANCIS GILMAN

A.B., Dart., 1908; M.D., Harv., 1913; *Med. H. O.*, *P. B. B. H.*, July 1, 1913-Nov. 1, 1914; *Asst. Res. Phys.*, *ibid.*, Nov. 1, 1914-

PETER BENT BRIGHAM HOSPITAL

Sept. 1, 1915; Res. Phys., *ibid.*, Sept. 1, 1915-Oct. 1, 1916; Moseley Travelling Fellow (Harv.), 1916-17; Asst., Rockefeller Inst. Hosp., 1916-17; Asst. Prof. of Med., Univ. of Minn., 1917-19; Visit. Phys., Elliott Mem. Hosp., Univ. of Minn., 1917-19 (leave of absence Feb. 11, 1918-July 1, 1919); Assoc. in Med., Rockefeller Inst. Hosp., 1919-20; Assoc. Mem. in Med., Rockefeller Inst. Hosp., 1920-21; Mem., Board Scientific Directors, Rockefeller Inst. for Med. Research; Sterling Prof. of Med., Yale Univ., School of Med.; Phys.-in-Chief, New Haven Hosp., New Haven, Connecticut.

BLOSSER, HAROLD L.

A.B., Grinnell Coll., Grinnell, Iowa; M.D., Harv., 1925; *Pathol. H. O., P. B. B. H.*, Jan. 1, 1925-Jan. 1, 1926; Grad. Asst. Roent., M. G. H., 1926; Surg. H. O., Lakeside Hosp., 1926-27; Asst. Res. Surg., *ibid.*, 1927-29; in practice, Portland, Ore.

BLUMGART, HERRMANN

B.S., Harv., 1917; M.D., *ibid.*, 1921; *Med. H. O., P. B. B. H.*, July 1, 1921-Nov. 1, 1922; Moseley Traveling Fellow, Harv., 1923; Asst., Thorndike Mem. Lab., B. C. H., 1924-28; Asst. in Med., Harv., 1924-27; Faculty Instr., *ibid.*, 1927-28; Asst. Prof. of Med., *ibid.*; 1928-29; Assoc. Prof. of Med., *ibid.*; Visit. Phys., Beth Israel Hosp.; Director, Med. Research, *ibid.*

BOEHM, JULIUS BENJAMIN

B.S., St. Louis Univ., 1910; M.D., Johns Hopkins, 1914; *Surg. H. O., P. B. B. H.*, Nov. 1, 1914-Nov. 1, 1915; Res. Surg., Greenpoint Hosp., Brooklyn, New York, 1915-18; Surg. Serv., Walter Reed Hosp.; in practice, Brooklyn, New York.

BOOGS, ARTHUR GORDON

A.B., Dart., 1915; M.D., Harv., 1919; *Surg. H. O., P. B. B. H.*, March 15, 1919-July 1, 1920; New Haven Hosp., New Haven, Connecticut; Med. Missionary, Clough Mem. Hosp., Ongole, South India.

BOOTH, GEORGE

B.S., Allegheny Coll., 1922; M.D., Harv., 1926; *Med. H. O., P. B. B. H.*, March 1, 1927-July 1, 1928; in practice, Pittsburgh, Pa.

BOOTHBY, WALTER MEREDITH

A.B., Harv., 1902; M.D., *ibid.*, 1906; A.M., *ibid.*, 1907; European clinics for 8 mos., 1907-08; Surg. H. O., B. C. H., 1908-09; Asst. in Anat., Harv., 1910-14; Asst. in Anesthesia, Harv. Grad. School of Med., 1912-13; Sheldon Travelling Fellow, Harv. (Oxford Univ., largely); Anesthetist, B. C. H., 1912; *Supervisor of Anesthesia, P. B. B. H.*, Dec. 11, 1913-Nov. 14, 1916; Lect. on Anesthesia and Instr. in Anat., Harv., 1914-16; Capt. and Major, M. C., U. S. Army, 1917-19; Assoc. Prof. of Med., Mayo Foundation, Univ. of Minn.; Head of Sect. of Clin. Metabolism, Mayo Clinic, Rochester, Minn.

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BOWEN, JOSEPH ANDREW

M.D., Univ. of Cincinnati, 1925; Interne, Cinn. Gen. Hosp., 1925-26; Fellow in Surg., Cleveland Clin., 1926-28; *Asst. Res. Surg.*, *P. B. B. H.*, July 15, 1928-July 15, 1929; in practice, Louisville, Ky.

BOWIE, MORRIS A.

A.B., Univ. of Col., 1925; M.D., Harv., 1929; *Med. H. O.*, *P. B. B. H.*, July 1, 1929-Nov. 1, 1930.

BOYD, DOUGLAS

Univ. of Ga.; M.D., Harv., 1922; H. O., Robert Brigham Hosp., Boston, 1921-22; Asst. Res. Phys., Boston Sanatorium, 1922-23; *Surg. H. O.*, *P. B. B. H.*, March 1, 1923-July 1, 1924; *Act. Asst. Res. Surg.*, *ibid.*, July 1-Aug. 1, 1924; Asst. in Med., Rockefeller Inst., 1924-25; Asst. Res. Phys., Hosp. of Rockefeller Inst.; Asst. Res. Surg., Lakeside Hosp., 1925-26; Res. Orthopedic Surg., Rainbow Hosp., Cleveland, Ohio, 1926; Clin. Asst. in Med., Northwestern Univ. Med Sch.; in practice, Highland Park and Chicago, Ill.

BOYDEN, HORACE MAYO

A.B., Univ. of Oregon, 1927; M.D., Univ. of Mich., 1930; *Med. H. O.*, *P. B. B. H.*, Nov. 1, 1930-Feb. 3, 1931. Died Feb. 3, 1931.

BRADLEY, JOHN I.

A.B., Georgetown Univ., 1920; M.D., Harv., 1925; Pathol. Interne, B. C. H., 1925; *Surg. H. O.*, *P. B. B. H.*, Nov. 1, 1925-March 1, 1927; Asst. Pathol., M. G. H.

BREWSTER, ALBERT H.

B.A., Univ. of Va., 1914; M.D., J. H. M. S., 1918; M. C., U. S. Army, 1917-19; Children's Hosp. Sch., Baltimore, Maryland, 1919-20; *Surg. H. O.*, *P. B. B. H.*, Feb. 15, 1920-July 1, 1921; Orthopedic Service, Children's Hosp., Boston; Instr., Orthopedic Surg., Harv.; Visit. Orth. Surg., N. E. Peabody Home for Crippled Children, and Industrial School for Crippled and Deformed Children; in practice, Boston.

BRIGHAM, FERDINAND

A.B., Tufts Coll., 1912; D.M.D., H.D.S., 1915; *Dental Surg.*, *P. B. B. H.*, March 13, 1919-Jan. 20, 1920; Capt., R. A. M. C., 1915-19; Degree, Dental Surg., Fac. of Med., Paris; in practice, 95 Ave. des Champs Elysees, Paris.

BRIGHAM, ROBERT B.

A.B., Williams, 1924; M.D., Harv., 1928; *Surg. H. O.*, *P. B. B. H.*, Oct. 1, 1928-June 1, 1929 (*resigned*); H. O., Good Samaritan Hosp., Portland, Ore., July, 1929-July, 1930; in practice, Northampton, Mass.

BRILL, SELLING

A.B., Stanford, 1920; M.A., *ibid.*, 1922; M.D., Harv., 1924; *Surg. H. O.*, *P. B. B. H.*, Nov. 1, 1924-March 1, 1926; Hunter Fellow in Surg., Univ. Hosp., Philadelphia, Pennsylvania; Asst. in Surg., Univ. of Calif.; Died Jan. 23, 1932.

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BRITTINGHAM, HAROLD HIXON

A.B., Yale, 1916; M.D., Harv., 1920; *Med. H. O., P. B. B. H., July 1, 1920-Nov. 1, 1921; Asst. Res. Phys., ibid., Nov. 15-Dec. 6, 1921; Demonstr. Physiol., Western Reserve Univ., 1922-23; Demonstr. in Med., ibid.; Asst. Visit. Phys., Cleveland City Hosp., 1923-30; Visit. Phys., ibid.; in practice, Cleveland, Ohio.*

BROWN, CHARLES LEONARD

B.S., Univ. of Oklahoma, 1919; M.D., *ibid.*, 1921; *Med. H. O., P. B. B. H., March 1, 1922-July 1, 1923; Res. Pathol., Children's Hosp., 1923-24; Instr. in Pathol., Harv.; Res. Pathol., P. B. B. H., July 1, 1924-Sept. 1, 1925; Teaching Fellow in Med., Harv.; Res. Phys., P. B. B. H., Sept. 1, 1925-Sept. 1, 1927; Instr. in Med., Harv.; Jr. Assoc. in Med., P. B. B. H., Sept., 1927-July, 1928; Asst. Prof. Int. Med., Univ. of Mich., July, 1928-July, 1929; Assoc. Prof. Int. Med., ibid.*

BROWN, WILLIAM EUSTIS

Ph.B., Lafayette Coll., 1909; C.P.H., Harv.-M. I. T., Sch. of Public Health, 1915; M.D., Harv., 1920; *Surg. H. O., P. B. B. H., Oct. 15, 1920-Feb. 20, 1922; Surg.-in-Chief, N. J. Zinc Co. Hosp., Franklin, New Jersey, 1922-24; Asst. Prof. Preventive Med., Univ. of Cinn., 1924-26; Assoc. Prof. Preventive Med., ibid.*

BRYANT, JOHN

A.B., Harv., 1903; Asst. Res. Surg., Free Hosp. for Women, Brookline, 1905-06; M.D., Harv., 1907; Instr. in Pathol. and Neuropathol., *ibid.*, 1907-08; Surg. House Pupil, M. G. H., 1908-10; Private Asst. to Dr. S. J. Mixter, 1910-12; Research in Europe, 1912, 1913, and 1914; Asst. in Anat., Harv., 1913-18; Grad. Asst., M. G. H., O. P. D., 1915-16; Asst. to Phys.-in-Chief, Robert B. Brigham Hosp., 1915-16; *Vol. Asst., P. B. B. H., July, 1916-Jan., 1917; Assoc. in Med., ibid., Jan. 1, 1917-Jan. 1, 1918; Major, M. C., U. S. Army, 1917-19; Secretary, American Gastro-Enterological Assn., 1923-27; Medical Asst. in Problems of Convalescence, M. G. H.; Consultant to Burke Foundation for Convalescents, New York; in practice, Boston.*

BUCK, ROBERT WILLIAM

A.B., Butler Coll., 1914; A.M., Columbia, 1915; M.D., Harv., 1921; Asst. Res., Boston Hosp. for Consumptives, 1921; *Med. H. O., P. B. B. H., Nov. 1, 1921-March 1, 1923; H. O., Boston Lying-In Hosp., 1923; Assoc. Chief, Med. Dept., Boston Disp.; Asst. Prof. Prev. Med., Tufts Medical School; in practice, Boston.*

BUCKLEY RICHARD COTTER

B.S., Trinity, 1919; M.D., Yale, 1924; Res. Pathol., New Haven Hosp., 1924-27; Instr. in Pathol., Yale Medical School, 1924-27; *Surg. H. O., P. B. B. H., June 15, 1927-Nov. 1, 1928; Jr. Assoc. in Surg., ibid., Nov. 1, 1928-Nov. 1, 1929; Asst. Res. Surg., ibid., Nov. 1, 1929-April 1, 1930; Asst. Surg., St. Francis Hosp., Hartford, Connecticut; in practice, Hartford, Connecticut.*

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BURLINGHAM, LOUIS HERBERT

A.B., Yale, 1902; M.D., Johns Hopkins, 1906; House Pupil, M. G. H., 1906-07; Asst. Res. Phys., *ibid.*, 1907-12; Asst. Adm., *ibid.*, 1912; *First Asst. Supt., P. B. B. H.*, Oct. 19, 1912-April 30, 1917; *Curator, ibid.*, May 8, 1913-May 10, 1917; Lect. on Hosp. Adm., Washington Univ. Med. Sch.; Assoc. Editor, Modern Hosp.; Supt., Barnes Hosp., St. Louis, Missouri; Administrator, St. Louis Children's Hosp., 1917-25; Mem., Med. Council to U. S. Vet. Bureau; Pres., Mo. Hosp. Assoc., 1921-22; Trustee, Mid-West Hosp. Assoc.; Director, Central Bureau for Homeless Men, St. Louis; Trustee, A. H. A., 1919-21; President, A. H. A., 1928-29.

BUTLER, STUYVESANT

Ph.B., Yale, 1924; M.D., Univ. of Chicago, 1928; Interne, Presbyterian Hosp., Chicago, Ill.; *Asst. Res. Phys., P. B. B. H.*, Sept. 1, 1929-May 1, 1930; in practice, Clinic of Dr. Ralph C. Brown, Chicago. *

CADBURY, WILLIAM WARDER

A.B., Haverford, 1898; A.M., *ibid.*, 1899; M.D., Univ. of Pa., 1902; Res. Phys., Pa. Hosp., 1903-05; Stud. in Vienna, 1905; Grad., London Sch. of Hygiene and Trop. Med., 1928; Instr. in Pathol. and Pharmacodynamics, Univ. of Pa., 1906-07; Pathol., St. Mary's Hosp., Philadelphia, 1906-07; Pathol., Henry Phipps Inst. for the Study, Treatment and Prevention of Tuberculosis, 1908-09; Visit. Phys., Free Hosp. for Poor Consumptives, White Haven, Pennsylvania, 1908-09; *Asst. Res. Phys., P. B. B. H.*, Nov. 1, 1915-March 1, 1916; College Phys., Lingnan Univ., Canton, China; Internist, Canton Hosp., Canton, China.

CAIRNS, HUGH WILLIAM BELL

M.B., B.S., Univ. of Adelaide, 1917; Rhodes Scholar, Oxford, 1919-20; F.R.C.S., England, 1921; War service, 1915-18; House Surg., Radcliffe Infirmary, Oxford, 1920-21; House Surg., London Hosp., 1921; Pathol. Asst., *ibid.*, 1921-22; House Phys., *ibid.*, 1922; Asst. in Surg. Unit, London Hosp., 1923; Surg. First Asst., *ibid.*, 1924-25; Asst. Surg., *ibid.*, 1926; Hunterian Prof., R. C. S., 1925-26; *Asst. Res. Surg., P. B. B. H.*, Oct. 1, 1926-Sept. 15, 1927; Asst. Surg., London Hosp., London, England; *Asst. Res. Surg., P. B. B. H.*, Sept. 5-Sept. 19, 1930.

CALHOUN, ABNER W.

A.B., Univ. of Ga., 1918; M.D., Harv., 1923; 2 mos. in tuberculosis work, Ray Brook, New York; Med. H. O., B. C. H., March 1, 1924-Nov. 15, 1925; *Asst. Res. Phys., P. B. B. H.*, Nov. 15, 1925-Sept. 1, 1927; Chief Res., Grady Hosp., Atlanta, Ga., 1927-28; in practice, Atlanta, Ga.

CARR, GLADYS LYDIA

M.D., Tufts, 1906; H. O., N. E. Hosp. for Women and Children, 1906-07; Asst. on Maternity Staff, *ibid.*, 1907-08; Gen. Practice, Boston, 1907-08; Private Practice, Lynn, 1908-14; Head of Roent.

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and Electrotherapeutic Depts., N. E. Hosp. for Women and Children; *Roentgenologist, pro tempore, P. B. B. H.*, June 1, 1914-Feb. 1, 1916; *Roentgenologist, ibid.*, Feb. 1, 1916-Oct. 31, 1917; Roentgenologist, American Comm. for Relief in the Near East, Asia Minor; Roentgenologist, Finley Hosp., Dubuque, Iowa.

CARTER, JR., DAVID WENDEL

A.B., Southwestern Univ., 1909; A.M., *ibid.*, 1910; M.D., Johns Hopkins, 1914; H. O., Clifton Springs Sanitarium, 1914; *Med. H. O., P. B. B. H.*, Jan. 4, 1915-July 1, 1916; Asst. Res. Phys., J. H. H., 1916-17; Res. Phys. in charge of Private Wards, *ibid.*, 1917-18; 1st Lieut., M. C., U. S. Army, 1917-19; Visit. Phys., Parkland Hosp., Dallas; Assoc. Prof. of Med., Baylor Univ., Dallas; Mem. Staff, Baylor Hosp.; Chairman, Med. Advisory Comm., Dallas Methodist Hosp.; in practice, Dallas, Texas.

CARTY, JOHN RUSSELL

B.S., Princeton, 1917; M.D., Cornell, 1921; House Phys., New York Hosp., 1921-23; *X-ray H. O., P. B. B. H.*, July 1, 1923-July 1, 1924; Asst., Dept. of Radiology, M. G. H., April-Oct., 1925; Chief of Clin. in Roent., Cornell Univ. Med. Sch. Clin., New York; Assoc. Prof. Roent., *ibid.*; Radiologist in Chief, New York Hosp.

CASTLE, EDWARD B.

B.S., Univ. of Mich., 1927; M.D., *ibid.*, 1929; *Surg. H. O., P. B. B. H.*, July 1, 1929-Nov. 1, 1930; in practice, Cleveland, Ohio.

CHASE, HENRY MELVILLE

S.B., Dart., 1897; M.D., Harv., 1901; House Pupil, M. G. H., 1901-02; Asst. Surg., Boston Disp., 1906-14; Surg., Boston Disp.; Surg., Berkeley Infirmary; Assoc. in Surg., *P. B. B. H.*, Nov. 17, 1914-July 11, 1919; in practice, Boston.

CHELEY, GLEN EVAN

A.B., Colorado Coll., 1916; M.D., Harv., 1920; *Surg. H. O., P. B. B. H.*, July 1, 1920-Nov. 1, 1921; H. O., Boston Lying-In Hosp., 1921-22; Instr. in Surg., Colorado Med. Sch.; Surg. to Out-Patients, Colorado Gen. Hosp.; in practice, Denver, Colorado.

CHRISTIAN, JR., THOMAS D.

M.D., Harv., 1923; Med. H. O., B. C. H.; Asst. Res. Phys., *P. B. B. H.*, Jan. 1, 1925-Nov. 15, 1925; Jr. Assoc. in Med., *ibid.*, Nov. 15, 1925-Oct. 1, 1926; in practice, Greensboro, North Carolina. Died January 12, 1929.

CLARK, JR., BURTON

B.S., Univ. of Wis., 1921; M.D., Harv., 1923; Interne, St. Luke's Hosp., Chicago, July 1, 1923-April 1, 1925; *Surg. H. O., P. B. B. H.*, May 1-Nov. 1, 1925; Pathol. H. O., B. C. H., Nov. 1, 1925-Jan. 1, 1926; in practice, Oshkosh, Wisconsin, 1926-31; Asst. Res. Surg., Lakeside Hosp.

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COBB, STANLEY

A.B., Harv., 1910; M.D., *ibid.*, 1914; *Surg. H. O., P. B. B. H.*, July 1, 1914-July 1, 1915; Vol., Lab. of Physiol. Research, Johns Hopkins, 1915-16; Asst. in Physiol., *ibid.*; Asst. in Psychiatry, *ibid.*, 1916-17; Asst. in Psychiatry and Physiol. of the Nervous System, *ibid.*; Asst. Psychiatrist, *ibid.*, 1917-18; Assoc. in Psychiatry, *ibid.* (on leave of absence); 1st Lieut., M. C., U. S. Army, 1917-19; Asst. Neurol., M. G. H., 1919-20; Dalton Scholar, *ibid.*; Instr. in Neurol. and Physiol., Harv., 1919-23; Asst. Neurol., M. G. H.; Asst. Prof. of Neuropathol., Harv., 1923; Rockefeller Fellow in Europe, 1923-25; Visit. Phys. for Neurol., B. C. H.; Assoc. Prof. Neuropathol., Harv., 1926; Bullard Prof. Neuropathol., *ibid.*

COCHRAN, H. WALTON

B.A., Univ. of Texas, 1924; M.D., Johns Hopkins, 1928; *Surg. H. O., P. B. B. H.*, Jan. 1, 1929-May 1, 1930; Jr. Fellow in Surg., Presbyterian Hosp., New York; Fellow in Surg., *ibid.*; Instr. in Surg., College of Phys. and Surg., N. Y.

COLBY, FLETCHER H.

S.B., Dartmouth, 1914; M.D., Harv., 1918; served with B. C. H. unit, Evacuation Hosp. No. 110, during war; Surg. Interne, M. G. H., 1919-21; Ludlow-Jute Co., Ltd., Calcutta, India, 1921-23; *Asst. Res. Surg., P. B. B. H.*, Jan. 1, 1924-Jan. 1, 1925; *Jr. Assoc. in Urol., ibid.*, Jan. 22, 1925-Oct. 1, 1926; *Act. Assoc. in Surg., ibid.*, July-Sept., 1927; Assoc. Urologist, M. G. H.; Asst. in G. U. Surg., Harv.; Asst. Surg., Palmer Mem. Hosp.; Asst. Surg., Huntington Mem. Hosp.; in practice, Boston.

CONNOR, CHARLES LLOYD

Univ. Pittsburgh, 1913-17; M.D., Baylor Univ., Coll. of Med., 1920; Interne, St. Joseph's Hosp., Pittsburgh, 1920-21; Gen. Practice, Montana, 1921-22; Fellow in Med., Nat. Research Council, 1922-25; Research Fellow, Pathol., Harv., 1923-25; Instr. in Pathol., *ibid.*, 1925; Faculty Instr., *ibid.*, 1926-28; *Res. Pathol., P. B. B. H.*, Sept. 1, 1925-Sept. 1, 1926; Acting Director, Pathological Laboratories, Montreal General Hosp. (leave of absence from Harvard, 1926-27); Assoc. Prof. Pathol. and Ex. Head, Dept. of Pathol., Univ. of Calif. Med. Sch.; Prof. Pathol., *ibid.*

COOK, WARD HANCE

A.B., Univ. of Kans., 1909; A.M., *ibid.*, 1910; Fellow in Zoölogy, *ibid.*, 1909-10; Instr. in Embryology and Histology, *ibid.*, 1910; M.D., Harv., 1914; *Med. H. O., P. B. B. H.*, July 1, 1914-July 10, 1915; 2nd Asst. in Pathol., B. C. H., 1915-16; 1st Asst. in Pathol., *ibid.*, 1916-17; Pathol., Long Island Hosp., Boston, 1917-21; Instr. in Pathol., Harv., 1917-21; Prof. of Pathol., Med. Coll. of Va., Richmond, Virginia, 1921-24; Assoc. Director, Wm. H. Singer Mem. Research Lab., Pittsburgh, Pennsylvania, 1925-26; Pathol., N. Y. Post Grad. Med. School and Hosp., 1926-28; Director, Bureau of Labs., Dept. of Health, Yonkers, N. Y.; Pathol., St. John's

PETER BENT BRIGHAM HOSPITAL

Riverside, Yonkers General, and St. Joseph's Hospitals, Yonkers, New York.

COULTER, A. BARKLIE

A.B., Catholic Univ. of America, 1918; M.D., Johns Hopkins, 1924; Asst., Trudeau Sanatorium, Saranac, 1924-25; Res. H. O., Royal Victoria Hosp., Montreal, 1925-26; *Jr. Assoc. in Med., P. B. B. H., Oct. 1, 1926-Sept. 1, 1927*; Head, Dept. of Med., Gallinger Municipal Hosp., Washington, D. C., 1930-31; Assoc. Prof. Med., Georgetown Univ.; Assoc. in Med., George Washington Univ.; in practice, Washington, D. C.

COUNCILMAN, WILLIAM THOMAS

M.D., Univ. of Md., 1878; Stud., Univs. of Vienna and Leipzig; Hon. A.M., Harv., 1899; Hon. A.M., Johns Hopkins, 1902; LL.D., Univ. of Md., 1907; LL.D., McGill Univ., 1911; LL.D., Western Reserve Univ., 1929; Asst. Prof. in Anat., Johns Hopkins, 1890-91; Shattuck Prof. of Pathol. Anatomy, Harv., 1892; Emeritus Prof., *ibid.*; *Consult. Pathol., P. B. B. H., March 25, 1912-Aug. 14, 1913*; *Pathol., ibid., Aug. 14, 1913-Dec. 1, 1916* (*granted leave of absence from Nov. 9-Dec. 1, 1916*); Mem., Dr. Hamilton Rice's Expedition to South America; Fellow, Am. Acad., 1895; Mem., Nat. Acad. of Sciences, 1904; Fellow, Philosophical Society, Philadelphia, 1918.

COX, WILLIAM V.

A.B., Univ. of Mich., 1921; M.D., Harv., 1925; H. O., Lakeside Hosp., 1925-26; Asst. Res., *ibid.*, 1926-28; Crile Fellow in Surg., Western Reserve Univ., 1928-29; *Asst. Res. Surg., P. B. B. H., July 15, 1929-Jan. 6, 1930*; Res. Surg., Lakeside Hosp., Jan., 1930-July, 1931; Instr. in Surg., Western Reserve Univ.; Asst. Surg., Lakeside Hosp.; Asst. Surg., Disp., *ibid.*

CRISLER, JR., JOSEPH AUGUSTUS

B.S., Univ. of Va., 1917; M.D., Harv., 1921; F.A.C.S.; *Surg. H. O., P. B. B. H., Nov. 1, 1921-March 1, 1923*; in practice, Memphis, Tenn.

CROCKETT, EUGENE ANTHONY

Act. Consult. Otologist and Laryngologist, P. B. B. H., June 13, 1918-Dec. 31, 1919.

CRUMP, GEORGE CURTIS

B.S., Dartmouth, 1923; M.D., Harv., 1926; *Surg. H. O., P. B. B. H., April 1, 1928-Aug. 1, 1929*; Asst. Res. Phys., Trudeau San., Saranac Lake, New York, 1929-31; Asst. Phys., Metropolitan Life Ins. Co. San.

CRUTCHFIELD, WILLIAM G.

A.B., Univ. of Ky., 1923; M.D., Johns Hopkins, 1927; Surg. Intern., Women's Hosp., Baltimore, Md., 1927-28; *Surg. H. O., P. B. B. H., July 1, 1928-Nov. 1, 1929*; Res. in Neuro-Surg., Memorial Hosp., Richmond, Va.

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CUNNINGHAM, THOMAS DONALD

B.S., Dart., 1913; M.D., Harv., 1918; House Pupil, M. G. H., 1917-18; *Asst. Res. Phys., P. B. B. H., March 1, 1919-July 1, 1920*; House Pupil, Children's Med. Serv., M. G. H., 1920-21; Mem., Med. Staff, Denver City and County Hosp., St. Joseph's Hosp., St. Luke's Hosp., and Children's Hosp., Denver, Colorado; Staff, Colorado Gen. Hosp.; Asst. Prof. Med., Univ. of Col.; in practice, Denver, Col.

CURTIS, ROBERT DUDLEY

A.B., Harv., 1914; M.D., *ibid.*, 1918; *Med. H. O., P. B. B. H., July 1, 1918-July 1, 1919*; Pediatric H. O., M. G. H., 1918; Asst. Visit. Phys., *ibid.*, O. P. D., 1919; Med. Director, Boston Baby Hygiene Assoc.; Asst. in Pediatrics, Harv.; in practice, Boston.

CURTISS, ARTHUR NILES

A.B., Oberlin Coll., 1918; M.D., Syracuse Univ., 1923; Instr. in Physiol., Coll. of Med., Syracuse Univ., 1918-24; *Med. H. O., P. B. B. H., Nov. 1, 1924-March 1, 1926*; Attend., Univ. Hosp., Syracuse, N. Y.; Attend., Gen. Hosp. of Syracuse; in practice, Syracuse, New York.

CUTLER, ELLIOTT CARR

A.B., Harv., 1909; M.D., *ibid.*, 1913; *Surg. H. O., P. B. B. H., Nov. 1, 1913-March 1, 1915*; Res. Surg., Harv. Unit, Am. Ambulance Hosp., Paris, France, 1915; Res. Surg., M. G. H., 1915-16; Alumni Asst. in Surg., Harv., 1915-16; Vol. Asst., Rockefeller Inst., New York, 1916-17; Major M. C., U. S. Army; D.S.M., 1917-19; Instr. in Surg., Harv., 1921-24; *Res. Surg., P. B. B. H., Aug. 1, 1919-Sept. 1, 1921*; *Assoc. in Surg., ibid., Sept. 1, 1921-July 1, 1924*; Chairman, Dept. of Surg., and Director of Lab. of Surg. Research, Harv., 1922-24; Prof. of Surg., Western Reserve Univ. Med. Sch. and Chief Surg., Lakeside Hosp., Cleveland, Ohio.

DAVIDOFF, LEO MAX

Two yrs. pre-med. work, Harv.; M.D., *ibid.*, 1922; Stud. Intern., Boston Psychopathic Hosp., April, 1921-June, 1922; Pediatric Serv., B. C. H., July-Nov., 1922; Med. Serv., New Haven Hosp., Nov. 1, 1922-Nov. 1, 1923; *Surg. H. O., P. B. B. H., March 1, 1924-June 20, 1925*; Surg., MacMillan Arctic Expedition, June 20, 1925-Oct. 1, 1925; *Asst. Res. Surg., P. B. B. H., Nov. 1, 1925-Oct. 1, 1926*; *P. B. B. H. Travelling Fellowship, 1926-27*; Asst. Neuro-Pathol., Psychiatric Inst. of the State of New York, 1927-28; Attend. Neuro-Surg., Beth Israel Hosp., N. Y.; Asst. Attend. Neuro-Surg., N. Y. Neurol. Inst.; Assoc. Neuro-Surg., Montefiore Hosp., N. Y.; Instr. in Neurol., Coll. of Phys. and Surg., Columbia Univ.; Asst. Attend. Surg., Div. of Neuro-Surg., Fifth Avenue Hosp.

DAVIDSON, LEONARD TOMB

A.B., Oberlin, 1912; M.D., Johns Hopkins, 1919; *Med. H. O., P. B. B. H., Sept. 15, 1919-Nov. 1, 1920*; Asst. Res. Phys., Presbyterian Hosp., New York, 1920-21; Res. Phys., St. Louis Children's Hosp.,

PETER BENT BRIGHAM HOSPITAL

St., Louis, 1921-23; Assoc., Diseases of Children, Col. Physicians and Surgeons, New York; Asst. Attend. Phys., Babies' Hosp., N. Y.

DAVIS, LOYAL

M.D., Northwestern Univ., 1918; M.S., *ibid.*, 1921; Ph.D. in Surg., *ibid.*, 1923; Nat. Research Council Fellow, 1922-24; *Jr. Assoc. in Surg., P. B. B. H.*, March-Oct., 1924; Assoc. Prof. Surg., Chief, Neuro-Surg. Div., Director, Lab. Exp. Research, Northwestern Univ. Med. Sch., 1925-31; Attend. Neurol. Surg., Wesley Mem. Hosp., Passavant Mem. Hosp., Michael Reese Hosp., and Children's Mem. Hosp., Chicago; Consult. Neurol. Surg., Edward Hines, Jr. Mem. Hosp.

DAWSON, ROGER PAUL

A.B., Holy Cross, 1907; M.D., Harv., 1911; Med. H. O., Carney Hosp., Boston, 1911-12; *Med. H. O., P. B. B. H.*, Nov. 1, 1912-Nov. 1, 1913; Fellow in Med., Harv., 1914-15; Phys., Carney Hosp., O. P. D., 1914-15; *Assoc. in Med., P. B. B. H.*, July 1, 1915-Dec. 31, 1916; Asst. Phys., Boston Disp., O. P. D.; Phys. to O. P. D., M. G. H.; Asst. in Med., Harv.; in practice, Boston.

DAYTON, THEODORE READ

A.B., Amherst, 1916; M.D., Harv., 1925; *Surg. H. O., P. B. B. H.*, March 1, 1926-July 1, 1927.

DEAN, JR., ARCHIE LEIGH

B.S., Cornell, 1913; M.D., *ibid.*, 1917; *Surg. H. O., P. B. B. H.*, May, 1917-Feb., 1918; 1st Lieut., M. C., U. S. Army, 1918-19; Assoc. Surg., Mem. Hosp., N. Y.; Assoc. Urol., Fifth Ave. Hosp., N. Y.; Visit. Urol., Reconstruction Hosp., N. Y.; Consult. Urol., Somerset Hosp., N. Y.; in practice, New York.

DEROW, HARRY A.

M.B., Boston Univ., 1926; M.D., *ibid.*, 1927; Pathol. H. O., M. G. H., June, 1927-Jan., 1928; *Med. H. O., P. B. B. H.*, March 1, 1928-July 1, 1929; Teach. Fellow in Med., Harv., 1929-30; Asst. in Med., *ibid.*; Res. Phys., Beth Israel Hosp., Aug., 1929-Aug., 1931; Med. Co-Ordinator, O.P.D., *ibid.*; in practice, Boston.

DEVAN, THOMAS ALAN

B.S., Rutgers, 1906; M.D., Johns Hopkins, 1910; H. O., Presbyterian Hosp., New York, 1911-13; *Second Asst. Supt., P. B. B. H.*, Aug. 1, 1913-May 1, 1917; *First Asst. Supt., ibid.*, May 1, 1917-July 1, 1919; 1st Lieut., M. C., U. S. Army, Nov. 5, 1918-Dec. 6, 1918; College Phys. and Prof. of Hygiene, Rutgers Coll., New Brunswick, New Jersey, July, 1919-July, 1925; Asst. Director, Strong Mem. Hosp., Rochester, New York, Sept., 1925-May, 1930; Supt., Eastern Maine Gen. Hosp., Bangor, Maine.

DICK, WILLIAM

B.S., Wash. Univ., 1920; M.D., Rush Med. Coll., 1922; *Med. H. O., P. B. B. H.*, July 1, 1922-Nov. 1, 1923; *Asst. Res. Phys., ibid.*, Nov. 1, 1923-Nov. 1, 1924; Grad. Stud., Vienna, Austria; Med. Res., Lane

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and Stanford Hosp., San Francisco, Calif.; Asst. Clin. Prof. Med., Stanford Univ.; Asst. Prof. Med., *ibid*; Assoc. Prof., *ibid*.

DOEGE, PAUL FREDERICK

Univ. of Wis., 1917-20; Western Reserve Univ., 1920-22; M.D., Harv., 1926; *Pathol. H. O., P. B. B. H.*, Oct. 1, 1926-Jan. 1, 1927.

DONALD, DOUGLAS

B.S., Univ. of Mich., 1916; M.D., Harv., 1918; *Med. H. O., P. B. B. H.*, Feb. 12, 1918-March 1, 1919; *Asst. Res. Phys.*, *ibid.*, March 1-June 16, 1919; Henry Ford Hosp., 1919-20; Asst. Prof. Med., Detroit Coll. of Med.; in practice, Detroit, Michigan.

DOTT, NORMAN McOMISH

M.B., Ch.B., Edinburgh; F.R.C.S., Edinburgh; *Jr. Assoc. in Surg.*, *P. B. B. H.*, Nov., 1923-June, 1924; Neurol. Surg., Royal Infirmary, Edinburgh and Jordanburn Nerve Hosp., Edinburgh; *Act. Asst. Res. Surg.*, *P. B. B. H.*, July-Aug., 1929; Surg., Royal Hosp. for Sick Children, Edinburgh; Lect. in Edinburgh Univ.

DOZIER, PAUL C.

A.B., Univ. of Calif., 1926; M.D., Harv., 1929; *Med. H. O., P. B. B. H.*, Nov. 1, 1929-March 1, 1931.

DRINKER, CECIL KENT

B.S., Haverford, 1908; M.D., Univ. of Pa., 1913; Vol. Asst., Dept. of Pharmacology, Univ. of Pa. Med. Sch., 1913-14; *Med. H. O., P. B. B. H.*, March 1, 1914-July 1, 1915; Asst. in Physiol., Johns Hopkins, 1915-16; Instr. in Physiol., Harv., 1916-18; *Res. Phys.*, *P. B. B. H.*, July 10-Oct. 15, 1917; Asst. Prof. Physiol., Harv., 1918-19; Assoc. Prof. Applied Physiol., *ibid.*, 1919-23; Asst. in Med., M. G. H., 1922; Asst. to the Visit. Phys., B. C. H., 1922-24; Special Research, Lab. of Zoophysiology, Univ. of Copenhagen, Denmark, 1926-27; Prof. of Physiol., Harv.; Asst. Dean, Harv. Sch. Public Health; Act. Dean, *ibid.*, May 1, 1930-Feb. 1, 1931.

DRINKER, KATHERINE ROTAN

A.B., Bryn Mawr, 1910; M.D., Women's Med. Coll. of Pa., 1914; *Asst. Res. Phys.*, *P. B. B. H.*, July 7-Sept. 24, 1917; Research Worker in Physiol., 1914-15, 1916-17; *ibid.*, Johns Hopkins, 1915-16; Managing Ed., Journal Indust. Hygiene, 1918-21; Lect. in Hygiene, Bryn Mawr Coll., 1921-23; Research Worker in Physiol., Harv., 1921-26.

DYKE, CORNELIUS

B.S., Univ. of Iowa, 1926; M.D., *ibid.*, 1926; Interne, Chelsea Naval Hosp., 1926-27; *H. O., Roent.*, *P. B. B. H.*, 1927-28; *Asst. Res. in Roent.*, *ibid.*, 1928-29; Asst. Director, Dept. of Roent., Neurol. Inst. of New York.

EDSON, PHILIPS JOSIAH

A.B., Univ. of Cal., 1920; M.A., *ibid.*, 1921; M.D., *ibid.*, 1924; Stud. Interne, Hahnemann Hosp., summer 1922; Med. Officer to Sierra

PETER BENT BRIGHAM HOSPITAL

Club Outings, 1921-22; Interne, Yosemite Hosp., Cal., 1923; *Med. H. O., P. B. B. H., Nov. 1, 1923-March 1, 1925*; *H. O., X-ray Dept., ibid., March 1-Sept. 1, 1925*; Jr. Member of Staff in Med., Pasadena Hosp.; Roentgenologist, Pasadena Disp., and Pasadena Chest Clin.; in practice, Pasadena, California.

EDWARDS, SUMNER

A.B., Bowdoin, 1910; Stud., Hebron Acad., Me., 1910-11; M.D., Harv., 1915; *Med. H. O., P. B. B. H., Nov. 1, 1915-Jan. 6, 1916*. *Died Jan. 6, 1916*.

ELIOT, MARTHA MAY

A.B., Radcliffe, 1913; M.D., Johns Hopkins, 1918; *Med. H. O., P. B. B. H., June 15, 1918-July 1, 1919*; St. Louis Children's Hosp., 1919-20; Phys., Boston, Massachusetts, 1920-21; Dept. of Pediatrics, New Haven Hosp., New Haven, Connecticut, 1921-23; Instructor, Yale, 1921-26; Asst. Clin. Prof. Pediatric Dept., Yale; Director, Div. of Child Hygiene, U. S. Children's Bureau, Washington, D. C.

ELKIN, DANIEL COLLIER

A.B., Yale, 1916; M.D., Emory Univ., 1920; Asst. Res. Surg., New York Lying-In Hosp., 1920; *Surg. H. O., P. B. B. H., March 1, 1921-July 1, 1922*; Asst. Res. Surg., *ibid.*, July 1, 1922-July 1, 1923; *Res. Surg., ibid., July 1-Sept. 1, 1923*; Asst. in Surg., Harv., 1923; Instr. in Surg., Emory Univ. Sch. of Med., 1924; Assoc. in Surg., *ibid.*, 1924-30; Prof. of Surg., Emory Univ. and Surg.-in-chief to University Hospitals; Surg.-in-chief, Henrietta Egleston Hosp. for Children, Atlanta, Georgia.

ENGELBACH, FRIEDRICH

A.B., Illinois College, 1924; M.D., Harv., 1928; *Med. H. O., P. B. B. H., July 1, 1928-Nov. 1, 1929*; Instr. in Dept. of Internal Med., Univ. of Mich.

EVANS, JAMES A.

A.B., Univ. of Wis., 1917; M.D., Harv., 1920; Med. Interne, Barnes Hosp., St. Louis; Group Practice, 1 yr.; St. Frances Hosp., La Crosse, Wisconsin; June, 1922, holder of Scholarship in France under Professors Gilbert and Widal and Dr. Bensaude; *Asst. Res. Phys., P. B. B. H., July 10, 1923-July 1, 1924*; Asst. Preceptor in Med., Univ. of Wis. Med. School; Vice-Chairman, Wis. Radiological Section; Mem., Central Soc. for Clin. Research; in practice, La Crosse, Wis.

FALK, EMIL A.

A.B., Univ. of Minn., 1921; M.D., Harv., 1925; *Med. H. O., P. B. B. H., July 1, 1925-Nov. 1, 1926*; Pathology, B. C. H., 1927; Med. Res., Second (Cornell) Med. Div., Bellevue Hosp., New York, 1927-29; National Hosp., Queen's Sq., London, England, May-Oct., 1929; Instr., Clin. Med., Cornell Univ.; Clin. Asst. Visit. Phys., Bellevue Hosp.; in practice, New York City.

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FALLON, JOHN

A.B., Holy Cross, 1919; M.D., Harv., 1923; Asst. in Anat., Harv., 1923-25; Surg. H. O., St. Vincent Hosp., Worcester, 1924-25; *Surg. H. O., P. B. B. H., March 1, 1925-July 1, 1926*; Fellow in Surg., Mayo Clin., Rochester, Minnesota, 1927-29; (on leave of absence, 1927); Surg. Res., St. Vincent Hosp., Worcester, 1927; Surg., *ibid.*

FALLON, LOUIS

M.D., Univ. of Pa., 1916; F.A.C.S.; *Surg. H. O., P. B. B. H., July 1, 1916-Nov. 15, 1916*; M. C., U. S. Army 1918-19; Capt. with Base Hosp. 51 and 69 and Gen. Hosp. 31, Carlisle, Pennsylvania; Consult. Surg., National Soldiers' Home, Togus; in practice, Augusta, Maine.

FARBER, SIDNEY

B.S., Univ. of Buffalo, 1923; M.D., Harv., 1927; *H. O., Pathol., P. B. B. H., Jan. 1-Sept. 1, 1927*; Res. Pathol., Children's Hosp., Sept. 1, 1927-Sept. 1, 1928; Guest Asst., Univ. of Munich Pathol. Inst., 1928-29; Instr. in Pathol., Harv.; Asst. Pathol., Children's Hosp.

FARBER, WILLIAM P.

A.B., Univ. of Cal., 1922; M.A., *ibid.*, 1923; M.D., Harv., 1927; *Surg. H. O., P. B. B. H., March 1, 1927-July 1, 1928*; Asst. Phys., U. S. Fed. Penitentiary, Atlanta, Georgia, 1928-29; Asst. in Urol. to Dr. Montague Boyd, Atlanta, Georgia, 1929-30; Res. in Urol., Grady Hosp., Atlanta, Georgia, 1930-31; in practice of Urology, St. Petersburg, Florida.

FARNSWORTH, RICHARD WIGGIN

A.B., Univ. of Wis., 1924; M.D., Harv., 1928; *Surg. H. O., P. B. B. H., April 1, 1929-Aug. 1, 1930*; in practice, Janesville, Wis.

FARRELL, JAMES IRVING

A.B., Hamilton, 1925; M.D., Harv., 1929; *Med. H. O., P. B. B. H., July 1, 1929-Nov. 1, 1930*; H. O., Mass. Eye and Ear Infirmary.

FEENEY, NEIL

B.A., M.D., McGill Med. School, 1927; Interne, Montreal Gen. Hosp.; *Asst. Res. Phys., P. B. B. H., Sept. 1, 1929-Aug. 1, 1930*; Asst. Demonstr. in Med., McGill Med. Sch.; in practice, Montreal.

FENDER, FREDERICK ALLEN

A.B., Univ. of Calif., 1924; M.D., Harv., 1929; *Surg. H. O., P. B. B. H., Oct. 1, 1929-Feb. 1, 1931*; H. O., B. C. H.

FETNER, L. M.

M.D., Med. Coll. of Va., 1915; *H. O. Roentgenology, P. B. B. H., Oct. 1, 1926-Oct. 1, 1927*; *Asst. Res. Roent., ibid., 1927-28*; in practice, Charlotte, N. C.

FISHBACK, FRED C.

A.B., Harv., 1919; M.S., Surg., Univ. of Minn., 1928; M.D., Harv., 1922; H. O., St. Francis Hosp., Jersey City, New Jersey; *Pathol.*

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H. O., P. B. B. H., May 15, 1923-Feb. 1, 1924; 1 yr. at Woman's Hosp., New York; New York Lying-In Hosp., 1925; Fellow in Surg., Mayo Clinic, Rochester, Minnesota, 1925-28; Assoc. Prof. Clin. Surg., Georgetown Univ. Med. Sch., 1930-31; in practice, Washington, D. C.

FISHER, RIVINGTON H.

M.B., Queen's Univ., 1915; M.D., *ibid.*; C.M., *ibid.*; Asst. Res. Surg., *P. B. B. H.*, July 13, 1923-Jan. 1, 1924.

FISKE, SEYMOUR

A.B., Univ. of Wis., 1916; M.D., Univ. of Pa., 1920; *Med. H. O., P. B. B. H.*, April 1, 1920-July 1, 1921; Out-Patient Attend., Babies' Hosp., New York, 1921-22; Attend. Phys., Cornell Clin., 1921-23; Attend. Gastro-Enterologist, Vanderbilt Clin., New York, 1923-24; Chief, G. I. Clin., Midtown Hosp., New York, 1925-26; Asst. Attend. Phys., Lutheran Hosp. of Manhattan; Asst. Attend. Phys., Presbyterian Hosp., O. P. D., New York; in practice, New York.

FITZHUGH, GREENE S.

B.S., Univ. of Illinois, 1921; M.D., Harv., 1927; *Med. H. O., P. B. B. H.*, July 1, 1927-Nov. 1, 1928; Jr. Assoc. in Med., *ibid.*, Nov. 1, 1928-Sept. 15, 1929; Asst. Res. Phys., Thorndike Lab., B. C. H., 1929-30; in practice, Boston.

FLEMING, HOWARD

A.B., Univ. of Cal., 1914; M.D., *ibid.*, 1917; Med. and Surg. H. O., Univ. of Calif., 8 mos.; Capt., M. C., U. S. Army; Asst. Res. Surg., San Francisco Hosp., 1919; Asst. Res. Surg., *P. B. B. H.*, Dec. 20, 1919-Feb. 1, 1921; Asst. Prof., Univ. of Cal.; Visit. Neuro-Surg., St. Luke's, Mt. Zion, and San Francisco Hospitals; in practice, San Francisco.

FLEMING, LEROY NEWTON

A.B., Miami, 1910; M.D., Johns Hopkins, 1914; Asst. in Surg., *ibid.*, 1915; *Surg. H. O., P. B. B. H.*, Nov. 1, 1915-March 1, 1916; Special Stud., Univ. of Mich., 1915-16; Surg. Research, Detroit, Michigan.

FOLEY, FREDERIC E. B.

Ph.B., Yale, 1913; M.D., Johns Hopkins, 1918; Asst. in Pathol., *ibid.*, 1918-19; Lab. for Surg. Research, Harv., 1919-20; *Surg. H. O., P. B. B. H.*, March 1, 1920-July 1, 1921; Assistant Prof. of Urol., Univ. of Minn. Med. Sch.; Chief Urologist, Ancker Hosp., St. Paul, Minnesota; Visit. genitourinary Surg., Miller Hosp.; in practice, St. Paul, Minnesota.

FORBES, HENRY STONE

A.B., Harv., 1905; Philippine Islands, 1905-06; M.D., Harv., 1911; Med. H. O., B. C. H., 1911-13; *Sr. Med. H. O., P. B. B. H.*, June 1-Nov. 1, 1913; Phys. for Men, Infirmary, Univ. of Cal., Berkeley, Cal., 1914-15; Am. Red Cross, Serbia, 1915-16; Asst. Phys., M. G.

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H., O. P. D.; Lieut. and Capt., M. C., U. S. Army, 1917-19; Research Work, Cancer Commission, Harv.; Lab. and Field Work, Div. Industrial Hygiene, *ibid.*; Hon. Research Fellow, Applied Physiol., Yale Univ., New Haven, Connecticut; Research Work, Neuropathol., Harv.; Research Fellow Neuropathol., *ibid.*

FORT, JR., LYNN

B.S., Univ. of Ga., 1921; M.D., Emory Univ., 1925; Interne, Cincinnati Gen. Hosp., July, 1925-Feb., 1926; *Surg. H. O., P. B. B. H., March 1, 1926-July 1, 1927*; Asst. Res. Surg., Strong Mem. Hosp., Rochester, N. Y., 1927-28; in practice, Atlanta, Ga.

FOSTER, JOHN HESS

B.S., Colby, 1913; M.D., Univ. of Pa., 1917; *Med. H. O., P. B. B. H., July 1, 1917-June 15, 1918*; 1st Lieut., M. C., U. S. Army, 1918-19; Instr. in Med., Hunan-Yale Coll. of Med., Changsha, China; Vol. Asst., Thorndike Mem. Lab., B. C. H., 1923-24; Asst. in Med., Harv., 1924; Asst. Prof. in Med., Hunan-Yale Coll. of Med., Changsha, China; Assoc. Prof. of Med., *ibid.*, 1924-27; Attend. Phys., Waterbury Hosp.; in practice, Waterbury, Conn.

FOSTER, LEWIS CHANDLER

A.B., Univ. of Kansas, 1919; M.D., Harv., 1923; Substitute, Med. Serv., New York Hosp., 2 mos., 1922; *Surg. H. O., P. B. B. H., July 1, 1923-Nov. 1, 1924*; Asst. Res. Surg., New Haven Hosp., 1924-25; Res. Surg., *ibid.*, 1925-27; Instr. Surg., Yale Med. School, 1925-28; Asst. Clin. Prof. Surg., *ibid.*

FREMONT-SMITH, FRANK

M.D., Harv., 1921; *Pathol. H. O., P. B. B. H., July 1, 1921-July 1, 1922*; Med. H. O., B. C. H., 1922-23; Asst. in Neuropathol., Harv., 1923-24; Asst. in Neurol., M. G. H.; Asst. in Neuropathol., Harv., 1924-25 and 1925-26; John White Brown Scholar, Harv., 1924-25 and 1925-26; Jr. Visit. Phys. for Neurol., B. C. H., 1927-29; Asst. Visit. Phys. for Neurol., *ibid.*; Research Fellow, Thorndike Mem. Lab., B. C. H.; in charge, Cerebrospinal Fluid Lab., B. C. H.; Asst. Prof. Neuropathol., Harv.

FREMONT-SMITH, MAURICE

A.B., Harv., 1913; M.D., *ibid.*, 1918; *Surg. H. O., P. B. B. H., March 1, 1918-Feb. 7, 1919*; in charge of hosp. at Sivas, Armenia, 1919-20; in practice, Boston.

FRIEDGOOD, HARRY B.

A.B., Univ. of Mich., 1924; M.D., Johns Hopkins, 1928; Act. Interne, Simpson Memorial Inst., Ann Arbor, Mich., Sept., 1927-Feb., 1928; *Med. H. O., P. B. B. H., Nov. 1, 1928-March 1, 1930*; Jr. Instr. in Int. Med., Univ. of Mich., March 1, 1930-July 1, 1930; Instr. in Int. Med., *ibid.*

FULTON, JOHN

B.A., Oxon, 1923; M.A. and Ph.D., *ibid.*, 1925; M.D., Harv., 1927; Rhodes Scholar, Magdalen College, Oxford Univ., 1921-23; Jr.

PETER BENT BRIGHAM HOSPITAL

Assoc. in Neurol., Surg., P. B. B. H., March-June, 1928; Research Fellow, Magdalen College, Oxford, England, 1928-30; Sterling Prof. of Physiology, Yale Univ. Sch. of Med.

GABE, WILLIAM EDWIN

M.D., Harv., 1918; *Surg. H. O., P. B. B. H., March 1, 1918-March 31, 1919*; Instr. in Surg., Indiana Univ. Sch. of Med.; Visit. Staff in Gynecology, Indianapolis City Hosp.; Staff, Methodist Episcopal Hosp., and St. Vincent's Hosp., Indianapolis; in practice, Indianapolis, Indiana.

GERMAN, WILLIAM J.

A.B., Univ. of Calif., 1922; M.A., *ibid.*, 1923; M.D., Harv., 1926; *Surg. H. O., P. B. B. H., July 1, 1926-Nov. 1, 1927*; Fellow in Plastic Surg., Johns Hopkins; Asst. in Surg., Yale Univ. School of Med., and Asst. Res. in Surg., New Haven Hosp., 1928-29; William Harvey Cushing Fellow in Surg., Yale Univ. School of Med.

GILE, HAROLD H.

A.B., Princeton, 1915; M.D., Columbia (Coll. of Phys. and Surgs.), 1922; Surg. Interne, Presbyterian Hosp., New York, 1922-24; *Asst. Res. Surg., P. B. B. H., Jan. 1-Nov. 1, 1925*; Asst. Visit. Urologist, Presbyterian Hosp., New York.

GOETSCH, EMIL

S.B., Univ. of Chicago, 1903; Ph.D., *ibid.*, 1906; Fellow Asst. and Assoc. in Anat., *ibid.*, 1904-08; Research Asst., Dept. of Exp. Therapeutics, *ibid.*, 1908-09; Rush Med. Coll., 1906-07; M.D., Johns Hopkins, 1909; Asst. in Surg., *ibid.*, 1909-10; Asst. Res. Surg., *ibid.*, 1910-12; *Res. Surg., P. B. B. H., Sept. 1, 1912-Sept. 1, 1915*; Asst. in Surg., Harv., 1912-15; Assoc. in Surg., Johns Hopkins, 1915-18; Assoc. Prof. of Surg., *ibid.*, 1918-19; Prof. of Surg. and Surg.-in-Chief, Long Island Coll. Hosp., Brooklyn, New York; in practice, Brooklyn, New York.

GOLDEN, ROSS

A.B., Cornell (Mt. Vernon, Iowa), 1912; M.D., Harv., 1916; *Med. H. O., P. B. B. H., July 1, 1916-July 18, 1917*; Capt. and Major, M. C., U. S. Army, 1917-20; House Phys., X-ray Dept., M. G. H., 1920-21; *Asst. Res. Phys., P. B. B. H., July 1, 1921-April 15, 1922*; Visit. Phys., Roentgen-ray Dept., Presbyterian Hosp., New York; Assoc. Prof. of Med., Columbia Univ.

GOODALL, HARRY WINFRED

A.B., Dart., 1898; M.D., Harv., 1902; House Pupil, M. G. H., 1902-03; House Pupil, Boston Lying-In Hosp., 1903; *Assoc. in Med., P. B. B. H., Dec. 12, 1912-Dec. 31, 1917*; Lieut. Col., M. C., U. S. Army, 1917-19; Instr. in Med., Harv. Grad. Sch. of Med.; Phys., Boston Dispensary; Asst. Visit. Phys., N. E. Baptist Hosp.; in practice, Boston.

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GOODPASTURE, ERNEST WILLIAM

A.B., Vanderbilt, 1907; M.D., Johns Hopkins, 1912; Rockefeller Fellow in Pathol., Johns Hopkins, 1912-14; Pathol., Union Protest. Infirmary, Baltimore, 1913-14; Asst. Res. Pathol., J. H. H., 1913-14; Act. Res. Pathol., *ibid.*, 1914-15; Instr. in Pathol., Johns Hopkins, 1914-15; *Res. Pathol., P. B. B. H., Sept. 1, 1915-Oct. 1, 1917*; Asst. Prof. Pathol., Harv.; Fellow in Pathol., Cancer Comm., *ibid.*; Lieut. (j. g.) M. C., U. S. N. R. F.; *Act. Pathol., P. B. B. H., Feb. 1-Aug. 15, 1920*; Chief, Dept. of Pathol. and Bacteriol., Univ. of Philippines, 1922; Pathol., Phil. Gen. Hosp., Manila, 1922; Director, William H. Singer Mem. Research Lab., Pittsburgh, 1922-24; Scholarship, Gen. Education Board of the Rockefeller Found. Inst. for Gen. and Exp. Pathol., Vienna, 1924-25; Prof. of Pathol., Vanderbilt Univ.

GORDON, BURGESS

A.B., Gonzaga Univ., 1912; M.D., Jefferson Med. Coll., 1919; Interne, Jefferson Hosp., 1919-21; *Asst. Res. Phys., P. B. B. H., Sept. 15, 1921-Aug. 1, 1922*; *Res. Phys., ibid., Aug. 1, 1922-Sept. 1, 1925*; Asst. Prof. Med., Jefferson Med. College; Asst. Phys., O. P. D., Pennsylvania Hosp.; Visit. Phys., White Haven San.; Med. Director and Phys. in charge, Dept. for Diseases of Chest, Jefferson Hosp., Philadelphia; in practice, Philadelphia, Pa.

GRAHAM, WILLIAM RANDOLPH

M.D., Med. Coll. of Va., 1925; Interne, Johnston-Willis Hosp., Richmond, Va., 1925-26; *Jr. Assoc. in Med., P. B. B. H., 1926-27*; in practice, Richmond, Virginia.

GRANT, SAMUEL BECKER

B.S., Washington Univ., 1918; M.D., *ibid.*, 1920; *Med. H. O., P. B. B. H., Oct. 16, 1920-March 1, 1922*; Med. H. O., J. H. H., March 1, 1922-May 1, 1922; *Asst. Res. Phys., P. B. B. H., April 15, 1922-Sept. 15, 1923*; Asst. in Clin. Med., Wash. Univ.; Asst. in Med., Barnes Hosp.; in practice, St. Louis, Missouri.

GRAVES, EDWIN G.

A.B., Univ. of Texas, 1920; M.D., Harv., 1924; *Med. H. O., P. B. B. H., July 1, 1924-July 1, 1925*; in practice, Houston, Texas.

GRAVES, ROGER COLGATE

A.B., Syracuse Univ., 1913; M.D., *ibid.*, 1918; *Surg. H. O., P. B. B. H., Aug. 15, 1918-Oct. 19, 1919*; Asst. Res. Surg., New Haven Hosp., New Haven, Connecticut, 1919-20; *Asst. Res. Surg., P. B. B. H., July 15, 1920-Aug. 1, 1921*; *Assoc. in Surg., ibid., Sept. 1, 1921-April, 1923*; Cabot Fellow, Harv., in charge of Lab. of Surg. Research, Sept. 1, 1921-Sept. 1, 1922; Urologist, Carney Hosp.; Genito-Urinary Surg., Pondville State Hosp. for Cancer; Assoc. Consult. Urologist, Brockton Hosp.; Consult. Urol., Quincy and Winchester Hospitals; in practice, Boston.

PETER BENT BRIGHAM HOSPITAL

GRAY, HORACE

A.B., Harv., 1909; M.D., *ibid.*, 1914; *Med. H. O., P. B. B. H.*, Nov. 1, 1914-March 1, 1916; Inst. for Juv. Research, Chicago, Ill., 1926-29; Assoc. Clin. Prof. Med., Stanford Univ., San Francisco, Calif.

GREEN, GEORGE F.

B.S., Univ. of Mich., 1922; M.S. in Surg., Univ. of Minn., 1929; M.D., Univ. of Mich., 1924; Asst. in Physiol., *ibid.*; Asst. in Med., B. C. H., IV Med. Serv.; Jr. Assoc. in Pathol., *P. B. B. H.*, Oct. 1, 1924-Jan. 15, 1925; Fellow in Surg., Mayo Foundation, 1925-29; Staff Surg., St. Joseph's Hosp. and Epworth Hosp., South Bend, Ind.; in practice, South Bend, Ind.

GREEN, WILLIAM T.

A.B., Indiana Univ., 1921; A.M., *ibid.*, 1922; M.D., *ibid.*, 1925; Instr. in Anat., Indiana Univ., 1921-22; Interne, Indiana Univ. Hosp.; Asst. Res. Surg., Henry Ford Hospital, Detroit; *Surg. H. O., P. B. B. H.*, Aug. 1, 1929-Feb. 1, 1930; Asst. Res. Surg., *ibid.*, Feb. 1, 1930-Oct. 1, 1930.

GREENE, JAMES A.

M.D., Harv., 1925; *Med. H. O., P. B. B. H.*, Nov., 1925-March, 1926.

GREENE, THEODORE C.

A.B., Harv., 1920; M.D., *ibid.*, 1924; Asst. in Pathol., Johns Hopkins, Sept., 1924-Jan., 1925; *Surg. H. O., P. B. B. H.*, March 1, 1925-July 1, 1926; Asst. in Clin. Neurol., Peking Union Med. Coll., Sept. 15, 1929-May 15, 1930; Surg., Douw Hosp., Presbyterian Mission, Peking, China.

GREENSPON, EDWARD A.

M.D., McGill Univ., 1916; House Bacteriol., Royal Victoria Hosp., Montreal, 1916-17; Asst. Res. Pathol., Johns Hopkins, 1917-18; Capt., Canadian Army Med. Corps; *Res. Pathol., P. B. B. H.*, Oct. 1, 1919-April 1, 1920; *Med. H. O., ibid.*, April 1, 1920-July 1, 1921; May Fellow in Med. Research, Johns Hopkins; Asst. in Med., *ibid.*, 1921-23; Jr. Attend. Phys., Montreal Gen. Hosp.; in practice, Montreal, Canada.

GREY, ERNEST

A.B., Univ. of Wis., 1907; Asst. in Anat., *ibid.*, 1907-08; Stud. in Med., *ibid.*, 1907-08; M.D., Johns Hopkins, 1911; Res. H. O., *ibid.*, 1911-12; *Surg. H. O., P. B. B. H.*, Nov. 1, 1912-Feb. 12, 1914; Asst. Res. Surg., *ibid.*, Feb. 12, 1914-Sept. 1, 1916; Asst. in Surg., Harv., 1915-16; Instr. in Surg., Johns Hopkins. Died Oct. 12, 1918.

GUNDERSEN, TRYGVE

M.D., Harv., 1926; *Surg. H. O., P. B. B. H.*, Nov. 1, 1926-March 1, 1928; Ophthalmic Interne, Mass. E. and E. Infir., 1929-30; Clin. Asst., *ibid.*; Asst. in Ophthalmology, Harv.; in practice, Boston.

REGISTER OF FORMER MEMBERS OF THE STAFF

HAIGHT, L. CAMERON

A.B., Univ. of Calif., 1923; M.D., Harv., 1926; *Surg. H. O., P. B. B. H., Nov. 1, 1926-March 1, 1928*; Asst. Res. Surg., New Haven Hosp., 1928-31; Instr. in Surg., Univ. of Mich.

HALBERSLEBEN, DAVID L.

A.B., Univ. of Nebraska, 1924; M.D., Harv., 1928; *Med. H. O., P. B. B. H., July 1, 1928-Nov. 1, 1929*; in practice, Roslindale, Massachusetts.

HALE, WORTH

A.B., Univ. of Mich., 1908; M.D., *ibid.*, 1904; *Assoc. in Med., P. B. B. H., Nov. 1, 1917-Dec. 31, 1918*; Assoc. Prof. of Pharm. and Asst. Dean, Harv.

HALLER, DAVID ALEXANDER

A.B., Hampden-Sidney, 1908; M.D., Columbia, 1913; *Med. H. O., P. B. B. H., Nov. 1, 1913-March 1, 1915*; Asst. Res. Phys., *ibid.*, March 1, 1915-Oct. 1, 1916; Res. Phys., *ibid.*, Oct. 1, 1916-June 6, 1917; Major, M. C., U. S. Army, 1917-19; Junior Attend. Phys., Hahnemann Hosp., 1920-21; Internist for the Rochester Clinic, Rochester, New York, 1919-25; Asst. Phys., Rochester Gen. Hosp.; Phys. to Baden St. Disp., 1924-25; Instr. in Med., Univ. of Rochester Med. Sch., 1926-29; Asst. Prof. of Med., *ibid.*; Asst. Phys., Strong Mem. Hosp., Rochester, N. Y.; Chief, Med. Serv., Rochester Gen. Hosp.; in practice, Rochester, N. Y.

HANSMANN, GEORGE H.

M.D., Univ. of Iowa, 1918; Hosp. Chem., Iowa Univ. Hosp., 1918-19; Clin. Asst., Dept. of Internal Med., *ibid.*, 1919-20; Lect. in Clin. Microscopy, *ibid.*, 1920-21; *Res. Pathol., P. B. B. H., Sept. 15, 1921-Sept. 15, 1923*; Pathol., Iowa Univ. Hosp.

HARBIN, MAXWELL

B.S., Univ. of Georgia, 1916; M.D., Harv., 1920; *Surg. H. O., P. B. B. H., Nov. 1, 1920-March 1, 1922*; H. O., Children's Hosp., 1922-23; Surg., Harbin Hosp., 1923-25; Assoc. in Orthopedic Surg., Lakeside Hosp.; Surg. in Charge, Rainbow Hosp.; Asst. Prof. Orthopedic Surg., Western Reserve Univ. School of Med.

HARBIN, JR., ROBERT MAXWELL

B.S., Univ. of Ga., 1925; M.D., Emory Univ. Med. School, 1928; *Surg. H. O., P. B. B. H., July 1, 1928-Nov. 1, 1929*; in practice, Rome, Ga.

HARRISON, TINSLEY RANDOLPH

A.B., Univ. of Mich., 1919; M.D., Johns Hopkins, 1922; *Med. H. O., P. B. B. H., Nov. 1, 1922-March 1, 1924*; Asst. Res. Phys., *ibid.*, March 1-Sept. 1, 1924; Asst. in Med., Johns Hopkins; Res. Phys., Vanderbilt Univ. Hosp., Nashville, Tennessee; Instr. in Med., *ibid.*, 1926-27 (leave of absence, 1927-28); Asst. Prof. Med., *ibid.*

PETER BENT BRIGHAM HOSPITAL

HARRISON, JR., WILLIAM GROCE

A.B., Univ. of Mich., 1924; M.D., Johns Hopkins, 1928; *Med. H. O., P. B. B. H., March 1, 1929-July 1, 1930.*

HARVEY, EARLE A.

B.S., Univ. of Wash., 1925; M.D., Harv., 1929; *Med. H. O., P. B. B. H., Nov. 1, 1929-March 1, 1931;* House Phys., Mercy Hosp., Denver, Colo.

HARVEY, SAMUEL CLARK

Ph.B., Yale, 1907; M.D., *ibid.*, 1911; Sc.D., Western Reserve, 1931; Alonzo Clark Fellow, Columbia, 1911-12; Instr. in Pathol., *ibid.*, 1912-13; Asst. Res. Phys., Loomis Sanitarium, Loomis, New York, 1913-14; *Surg. H. O., P. B. B. H., Nov. 1, 1914-Nov. 1, 1915;* Arthur Tracy Cabot Fellow, in charge of Lab. of Surg. Research, Harv., 1915-16; *Asst. Res. Surg., P. B. B. H., Nov. 1, 1916-May 7, 1917;* Major, M. C., U. S. Army, 1917-19; Res. Surg., New Haven Hosp.; Instr. in Surg., Yale, 1919-20; Asst. Prof. of Surg., *ibid.*, 1920-21; Assoc. Prof. of Surg., *ibid.*, 1921-23; Consult. Surg., State of Conn. Tbc. Comm.; Surgeon-in-Chief, New Haven Hosp. and New Haven Disp.; Prof. of Surg., Yale.

HASS, GEORGE MARVIN

M.D., Harv., 1929; *Pathol. H. O., P. B. B. H., Jan. 1, 1930-Jan. 1, 1931.*

HATCH, FLOYD FROST

A.B., Univ. of Utah, 1912; M.D., Harv., 1914; *Med. H. O., P. B. B. H., March 1, 1914-Jan. 4, 1915* (*granted leave of absence from Jan. 4-Feb. 28, 1915*); Surg. House Pupil, M. G. H., 1915-16; House Surg., *ibid.*, 1916-17; Surg. to G. U. Dept., Salt Lake County Hosp., 1917-18; Surg. to G. U. Dept., L. D. S., Hosp., Salt Lake City, Utah; 1st Lieut., M. C., U. S. Army, 1918-19; Asst. County Phys., Salt Lake County Hosp., and Asst. Visit. Surg., *ibid.*, 1921-22; Post-Grad. Study of Surg., Europe, 1926-27; Sr. Visit. Surg., Latter Day Saints' Hosp.; Surg., Inter-Mountain Clin.; in practice, Salt Lake City, Utah.

H'DOUBLER, FRANCIS TODD

B.A., Univ. of Wis., 1907; M.A., *ibid.*, 1908; Ph.D., *ibid.*, 1910; Stud., Univ. of Wis. Med. Sch., 1 year; Stud., Rush Med. Sch. and Univ. of Philippines, 1 year; M.D., Harv., 1915; H. O., Augustana Hosp., Chicago, 1915-16; *Med. H. O., P. B. B. H., Jan. 11, 1916-March 1, 1917;* H. O., Augustana Hosp., 1917-18; 1st Lieut. and Capt., M. C., U. S. Army, 1918-19; Moseley Travelling Fellow, Harv., 1919-20; Lakeside Hosp., Cleveland, Ohio, 1921; Instr. in Pathol. and Surg., Univ. of Ill., 1921-24; Jr. Attend. Surg., Augustana Hosp., Chicago; in practice, Chicago; Attend. Surg., St. John's, Burge Deaconess, and Springfield Baptist Hospitals; Instr., Bacteriol., S. W. T. Coll., Springfield, Missouri; in practice, Springfield, Missouri.

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HEAD, JEROME R.

M.D., Harv., 1922; *Surg. H. O., P. B. B. H.*, July 1, 1922-Nov. 1, 1923; Surg. Pathol., Mayo Clin., Rochester, Minnesota, 1924; Res. Surg., State of Wis. Gen. Hosp., Madison, 1924-26; Assoc. in Surg., Northwestern Univ.; in practice, Chicago, Ill.

HENDERSON, WILLIAM ROBERT

M.B., Ch.B., Edinburgh, 1926; House Surg., Royal Infirmary, Edinburgh, 1926-27; House Surg., Sick Children's Hosp., Edinburgh, 1927; Rockefeller Fellow, British Research Council; *Asst. Res. Surg., P. B. B. H.*, May 1, 1930-Mar. 15, 1931; Clin. Asst. in Neuro-Surgery, Edinburgh Royal Infirm.

HERRICK, THEODORE POMEROY

AB., Yale, 1915; M.D., Harv., 1919; *Med. H. O., P. B. B. H.*, Dec. 26, 1918-Jan. 1, 1920; Med. H. O., Children's Hosp., Boston, 1920; H. O., Infants' Hosp., Boston, 1921; Res. Pediatrician, Rainbow Hosp., Cleveland, Ohio, 1921-24; Asst. Visit. Pediatrician, St. Vincent's Charity Hosp., Cleveland, Ohio, 1921-28; Asst. Visit. Pediatrician, St. Luke's Hosp., Cleveland, Ohio, 1922-23, and from 1928 to present time; in practice, Cleveland, Ohio.

HERRMANN, GEORGE R.

B.S., Univ. of Mich., 1916; M.D., M.S., *ibid.*, 1918; Ph.D., *ibid.*, 1922; *Med. H. O., P. B. B. H.*, Oct. 1, 1918-Oct. 1, 1919; Asst. Res. Phys., Barnes Hosp., 1919-20; Res. Phys., *ibid.*, and Asst. in Med., Wash. Univ., St. Louis, 1920-21; Instr. in Med., Univ. of Mich., and Asst. Prof. Med., *ibid.*, 1921-25; Asst. Prof. of Med. and Assoc. Prof. of Med., Tulane Univ., New Orleans, La.; Prof. of Clin. Med., Univ. of Texas.

HERRMANN, LOUIS G.

A.B., Univ. of Mich., 1920; M.D., Wash. Univ. Med. Sch., 1924; Interne, Maryland Gen. Hosp., Baltimore, July 1, 1924-March 1, 1925; *Med. H. O., P. B. B. H.*, March 1, 1925-July 1, 1926; Asst. Res. Surg., Lakeside Hosp., Cleveland, Ohio, 1926-27; Crile Research Fellow in Surg. and Director, Lab. of Surg. Research, Western Reserve Univ. and Lakeside Hosp., 1927-28; Res. Surg., Lakeside Hosp.; Instr. in Surg., Western Reserve Univ., 1929-30; Asst., Clinique Chirurgicale A (Prof. Leriche) Univ. de Strasbourg, Strasbourg, France, 1930-31; Asst. Chirurgische Universitats Klinik (Prof. P. Clairmont) Univ. of Zurich, Switzerland, 1931-32; Asst. Prof. of Surg., Univ. of Cincinnati.

HIGBEE, DANIEL RIGGS

A.B., Col. Coll., 1920; M.D., Harv., 1923; Med. H. O., M. G. H., March, 1924-Nov., 1925; *Surg. H. O., P. B. B. H.*, Nov. 1, 1925-March 1, 1927.

HJORT, AXEL MAGNUS

A.B., Univ. of Ill., 1914; M.S., *ibid.*, 1915; Ph.D., Yale, 1918; M.D., Yale Univ. Med. Sch., 1921; *Med. H. O., P. B. B. H.*, July 1, 1921-

PETER BENT BRIGHAM HOSPITAL

Nov. 1, 1922; Parke Davis & Co., Detroit, Michigan, 1923-26; Prof. Pharmacology, Dart. Med. Sch., Hanover, N. H., 1926-29; Toxicologist and Asst. Director of Med. Research, Med. Research Div., Chemical Warfare Service, Edgewood Arsenal, Edgewood, Md., 1929-32; Physiologist, Exp. Research Labs., Burroughs Wellcome Co., Tuckahoe, N. Y.

HODGSON, JOHN SPRAGUE

Ph.B., Brown, 1911; M.D., Harv., 1917; Surg. House Pupil, M. G. H., 1915-16; Res. Surg., *ibid.*, 1916; *Surg. H. O., P. B. B. H., Nov. 1, 1916-March 1, 1917*; Asst. Res. Surg., *ibid.*, March 1-June 22, 1917; 1st Lieut., M. C., U. S. Army, 1917-19; Typhus Work in Macedonia, 1919; Res. Surg., M. G. H., 1920; Second in Neurol. Surg., M. G. H.; Asst. Visit. Surg., *ibid.*

HOLMAN, EMILE

A.B., Stanford Univ., 1911; Univ. of Oxford, 1916; Med. Stud., Oxford Univ., Royal College of Surgeons, Edinburgh, Rotunda Hosp., Dublin, National Hosp., London, 1914-17; M.D., Johns Hopkins, 1918; Res. Med. Officer, Children's Hosp. Sch., 1918-19; Asst. Res. Surg., J. H. H., 1919-21; Res. Surg., *ibid.*, 1921-23; Instr. in Surg., J. H. M. S., 1920-23; Asst. Res. Surg., *P. B. B. H., July 15-Sept. 1, 1923*; Res. Surg., *ibid.*, Sept. 1, 1923-July 1, 1924; Austin Teach. Fellow, Harv., 1923-24; Attend. Surg., Lakeside Hosp. and Asst. Prof. of Surg., Western Reserve Univ., Cleveland, Ohio, July, 1924-Dec., 1925; Assoc. Prof. Surg., Stanford Univ. Med. Sch., 1925-26; Attend. Surg., Stanford Univ. Hosp., San Francisco; Prof. of Surg., Exec. Head, Dept. of Surg., Stanford Univ. Med. School; Visit. Surg., Peiping Union Med. Coll., Peiping, China, Sept.-Dec., 1930.

HOUCK, GEORGE H.

A.B., Univ. of Oregon, 1923; M.D., Harv., 1927; *Med. H. O., P. B. B. H., Nov. 1, 1927-March, 1929*; Asst. Res. in Med., Lane Hospital and Stanford Univ. Med. Sch., 1929-30; Visit. Phys. in charge of Med. O. P. D., Univ. of Calif. Hosp.; Asst., Dept. of Med., Univ. of Calif. Med. Sch., San Francisco, Calif., 1930-31; Jr. Visit. Phys., Los Angeles General Hosp.; Assoc. Staff, St. Vincent's Hosp., Los Angeles; Instr., Dept. of Med., Univ. of Southern Calif., Los Angeles, Calif.

HOUSTON, JR., DAVID WALKER

A.B., Princeton, 1912; M.D., Harv., 1916; *Surg. H. O., P. B. B. H., July 1, 1916-Nov. 1, 1917*; Asst. Res. Surg., *ibid.*, Nov. 1, 1917-Feb. 8, 1918; 1st Lieut., M. C., U. S. Army, 1918-19; Attend. Surg., Samaritan Hosp., Troy, New York; in practice, Troy, New York.

HOWARD, HERBERT BURR

A.B., Harv., 1881; M.D., *ibid.*, 1884; Asst. Phys., State Infirmary, Tewksbury, Massachusetts, 1884-85; in practice, Idaho Springs, Colorado, 1885-87; Asst. Phys., State Infir., 1887-91; Supt., *ibid.*, 1891-97; Res. Phys., M. G. H., 1897-1908; Supt., *P. B. B. H., May*

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1, 1908-May 1, 1919 (*retired—age limit*) ; Mem., Mass. State Bd. of Insanity, 1898-1913 (Chairman, 1908-13) ; Pres., American Hosp. Assoc., 1909-10; Trustee, State Colony for the Insane, Gardner, Massachusetts. *Died March 6, 1923.*

HUDSON, RICHARD T.

B.S., Univ. of Louisville, 1920; M.D., *ibid.*, 1924; 1 year rotating internship, Louisville City Hosp.; Asst. Res. Surg., Louisville City Hosp.; *H. O., Roentgenology, P. B. B. H., Aug. 1-Oct. 12, 1926;* Gen. Practice, Oldham Co., Ky., 1926-28; Clin. Asst., Orthopedic Surg., Louisville City Hosp., 1928-31; Member of Staff at Following Hospitals: Louisville City, Kentucky Baptist, St. Joseph's, Norton Mem. Infirm., Crippled Children's, Masonic Widows and Orphans Home; Member, Professional Advisory Comm., Kentucky Crippled Children's Commission; Res., Orthopedic Surg., Hosp. for Relief of Ruptured and Crippled, N. Y.; in practice, Louisville, Ky.

HUGGINS, HARRISON D.

Univ. of Oregon Med. School, 2 yrs.; M.D., Harv., 1926; Substitute H. O., House of Good Samaritan; *Med. H. O., P. B. B. H., Nov. 1, 1926-March 1, 1928;* 6 mos. post-grad. work, Vienna, Austria; in practice, Portland, Ore.

HUMISTON, HOMER W.

B.S., Univ. of Ill., 1923; M.D., Harv., 1925; *Med. H. O., P. B. B. H., July 1, 1925-Nov. 1, 1926;* Fellow in Surg., Mayo Clin., Rochester, Minn., Nov. 1, 1926-April 1, 1929; in practice, Oak Park, Ill.

HURWITZ, SAMUEL HAYMANN

A.B., Harv., 1907; A.M., *ibid.*, 1908; Special Stud., Univ. of Strassburg, Germany, 1909-10; Spec. Student, Inst. of Infectious Diseases, Berlin, Germany, summer of 1911; M.D., Johns Hopkins 1912; Res. H. O., J. H. H., 1912-13; *Surg. H. O., P. B. B. H., Nov. 1, 1913-March 1, 1915;* Instr. in Research Med., Univ. of Calif., 1915-17; Asst. Clin. Prof. of Med., *ibid.*, 1917-26; Assoc. Clin. Prof. of Med., Stanford Univ. Med. School.

INGRAHAM, FRANC DOUGLAS

A.B., Harv., 1922; M.D., *ibid.*, 1925; *Surg. H. O., P. B. B. H., July 1, 1925-Nov. 1, 1926;* Fellow in Surg., Johns Hopkins Univ., Nov. 1, 1926-Sept. 1, 1927; *Asst. Res. Surg., P. B. B. H., Sept., 1927-Sept., 1928;* *Res. Surg., ibid., Sept.-Oct., 1928; P. B. B. H. Traveling Fellow in Surg., 1928;* Asst. Neurol. Surg., Children's Hosp., Boston; Asst. in Surg., Harv.

JACK, EDWIN EVERETT

A.B., Harv., 1884; M.D., *ibid.*, 1887; *Act. Consult. Ophthalmologist, P. B. B. H.;* Consult. Ophthalmologist, Mass. Eye and Ear Infir. ; in practice, Boston.

PETER BENT BRIGHAM HOSPITAL

JACK, WILLIAM DAVID

A.B., Creighton, 1908; Grad. Stud., Univ. of Chicago, 1909-10; M.D., Johns Hopkins, 1914; *Surg. H. O., P. B. B. H.*, July 1, 1914-Nov. 1, 1915; Capt. and Asst. Surg., 2nd Harv. Unit, B. E. F., France, 1915-16; Asst. Res. Urologist, J. H. H., 1916-17; Capt., M. C., U. S. Army and Consult. Urologist, A. E. F., 1917-19; Asst. Res. Surg., and Res. Urol., J. H. H., 1919-21; in practice, Chicago, Illinois.

JACKSON, HOWARD BURR

A.B., Harv., 1915; M.D., *ibid.*, 1919; *Med. H. O., P. B. B. H.*, March 15, 1919-April 1, 1920; H. O., Surg. and Obstet. Services, Mass. Homœopathic Hosp., 1920; Asst. Phys. to Out-Patients, M. G. H.; Phys., Boston Dispensary; in practice, Jamaica Plain, Massachusetts.

JACKSON, HOWARD L.

M.D., Tufts, 1918; Interne, Springfield Hosp.; in practice, Springfield, Mass.; *H. O., Roent.*, *P. B. B. H.*, Oct. 1, 1929-July 1, 1930.

JACOBSEN, VICTOR CLARENCE

B.S., Univ. of Wis., 1915; M.D., Harv., 1917; *Med. H. O., P. B. B. H.*, July 18, 1917-July 1, 1918; 1st Lieut., M. C., U. S. Army, 1918; *Pathol. H. O., P. B. B. H.*, Jan. 1-July 1, 1919; *Res. Pathol., ibid.*, July 1-Oct. 1, 1919; Asst. Prof. of Pathol., Univ. of Wisconsin, 1919-20; *Res. Pathol., P. B. B. H.*, July 1, 1920-Sept. 1, 1921; Instr. in Pathol., Harv., 1920-21; Pathol., Albany Hosp. and Troy Hosp.; Cyrus Strong Merrill Prof. of Pathol., Union Univ., Albany, N. Y.; Member, National Research Council, Med. Div., 1930; Research, Pasteur Inst., Paris, under Prof. C. Levaditi, 1931.

JACOBSON, CONRAD

B.S., Beloit, 1900; Grad. Stud., 3 summer qrs., Univ. of Chicago; Asst. Prof. of Chem. and Bacteriol., Armour Inst. of Tech., 1903-05; Research Asst. in Pathol., Univ. of Chicago, 1907-08; M.D., Johns Hopkins, 1911; Asst. in Surg., Hunterian Lab., *ibid.*, 1911-12; *Asst. Res. Surg., P. B. B. H.*, Sept. 1, 1912-Sept. 1, 1915; *Res. Surg., ibid.*, Sept. 1, 1915-July 1, 1920; Asst. in Surg., Harv.; Assoc. Prof. of Surg., Univ. of Minn. Med. Sch., 1920-22; in practice, Seattle, Washington.

JAMESON, CHARLES HAROLD

A.B., Harv., 1916; M.D., *ibid.*, 1919; *Surg. H. O., P. B. B. H.*, June 15, 1919-Nov. 1, 1920; Free Hosp. for Women, Brookline, 1920-21; *Asst. Res. Surg., P. B. B. H.*, Feb. 14-June 15, 1921; *Asst. Res. Surg., ibid.*, Sept. 15, 1921-June 21, 1922; in practice, Rockland, Maine.

JANNEY, JAMES CRAIK

A.B., Harv., 1911; M.D., *ibid.*, 1915; *Surg. H. O., P. B. B. H.*, July 1, 1915-Nov. 1, 1916; Capt., M. C., U. S. Army; H. O., Boston

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Lying-In Hosp., 1923; Fellow, Am. Coll. Surgs., 1926; First Asst. Obstetrician, Mass. Memorial Hosp.; Asst. Prof. Gynaecology and Instr. in Obstetrics, Boston Univ. Sch. of Med.; Obstetrician, Florence Crittenton Home; in practice, Boston.

JOELSON, JAMES J.

M.D., Columbia, 1920; Surg. Interne, Presbyterian Hosp., New York, 1920-22; *Asst. Res. Surg., P. B. B. H., July 15, 1922-July 26, 1923*; Asst. Res. Surg., New Haven Hosp., and Instr. in Surg., Yale, 1923-24; Asst. Res. Surg. (G. U. Surg.) Lakeside Hosp., 1924-25; Demonstr. in G. U. Surg., Western Reserve Univ., Cleveland, Ohio, 1924-25; Instr. in G. U. Surg., *ibid.*, 1925-27; Clin. Instr., G. U. Surg., *ibid.*, 1927-28; Asst. G. U. Surg., Lakeside Hosp., 1926-28; Assoc. G. U. Surg., *ibid.*; Asst. Prof. G. U. Surg., Western Reserve Univ.

JONES, MERRITT LACOUNT

S.B., Univ. of Wis., 1912; M.D., Harv., 1915; *Surg. H. O., P. B. B. H., July 1, 1915-Nov. 1, 1916*; *Asst. Res. Surg., ibid., Nov. 1, 1916-March 1, 1917*; Capt., M. C., U. S. Army, 1917-19; in practice, Wausau, Wisconsin.

JONES, WILFRED GRANT

B.S., College of Wooster, Wooster, Ohio, 1921; M.D., Harv., 1924; *Med. H. O., P. B. B. H., May 15, 1924-March 1, 1925*; Missionary work, Miraj, India.

KAZANJIAN, VARAZTAD H.

D.M.D., Harv., 1905; M.D., *ibid.*, 1921; F.A.C.S., 1928; Mem. Harv. Unit, B. E. F., 1915-16; Surg. Specialist for Wounds of Jaws and Face, B. E. F., 1916-19; C. M. G.; *Dental Surg., P. B. B. H., Jan. 22, 1920-Dec., 1922*; Prof. of Clin. Oral Surg., Harv.; Visit. Surg., Oral and plastic Surg., B. C. H.; Surg. for Plastic Operations, Mass. Eye and Ear Infir.; Consult. Oral Surg., Camb. Hosp.; Mem. of Staff, Consult. Surgeons, Newport Hosp., Newport, Rhode Island; Attend. Specialist, U. S. P. H. S.; Asst. Laryngologist, Huntington Mem. Hosp.; Consult. in Plastic Surg., M. G. H.; Consult. in Oral Surg., Palmer Mem. Hosp.; Member of Staff, N. E. Deaconess Hosp.; Member, Consult. Staff, Beth Israel Hosp.; in practice, Boston.

KEBABJIAN, HRANT SETRAG

A.B., Anatolia Coll. (Armenia), 1913; M.D., Harv., 1918; Admitting Phys., Babies' Ward, Post Grad. Hosp., New York, 1918; *Surg. H. O., P. B. B. H., Nov. 15, 1918-March 1, 1920*; City Phys., Buffalo, New York, 1920-21; Director, Comm. on Hosps. in Cilicia, 1921-22; Asst. Res., Long Island Hosp., Boston Harbor, 1922-26; in practice, Boston.

KEEGAN, JOHN JAY

A.B., Univ. of Neb., 1912; A.M., *ibid.*, 1914; M.D., *ibid.*, 1915; Instr. in Anat., *ibid.*, 1915-17; *Pathol. H. O., P. B. B. H., June 15,*

PETER BENT BRIGHAM HOSPITAL

1917-Dec. 15, 1917; Lieut., M. C., U. S. Navy, 1917-19; *Surg. H. O.*, *P. B. B. H.*, Aug. 13, 1919-Nov. 1, 1920; Asst. Prof. of Pathol., Univ. of Neb., 1920-23; Prof. Clin. Pathol., Director of Clinics, Sec. of the Faculty, *ibid.*, 1923; Neuro-surg., Univ. Hosp.; Dean, Coll. of Med., Univ. of Nebraska, 1925-29; Prof. Neuro-Surg., *ibid.*; in practice, Omaha, Nebraska.

KENNEDY, W. ROLAND

B.Sc., McGill, 1922; M.D., C.M., *ibid.*, 1925; Interne, rotating service, Montreal Gen. Hosp., 1925-26; Pathol. service, *ibid.*, 1926; Sr. in Med., *ibid.*, 1927-28; *Asst. Res. Phys.*, *P. B. B. H.*, Sept. 1, 1928-July 1, 1929; in practice, Montreal, P. Q., Canada.

KEYSER, LINWOOD DICKENS

B.A., Virginia, 1914; M.D., Johns Hopkins, 1918; F.A.C.S., 1928; H. O., J. H. H., 1918-19; *Asst. Res. Surg.*, *P. B. B. H.*, July 1-Nov. 1, 1919; Res. Surg., New York Post Grad. Hosp., New York City, 1920; Fellow, Mayo Foundation, Rochester, Minnesota, 1920-23; M.S., Mayo Foundation; Univ. of Minn Grad. Sch. in Med., 1921; Attend. Surg. and Surg. Pathol., Roanoke Hosp., Roanoke, Va.

KING, DONALD STORRS

A.B., Oberlin, 1912; M.D., Harv., 1918; H. O., Orthopedic Serv., Children's Hosp.; 1st Lieut., M. C., U. S. Army, 1918-19; Med. H. O., M. G. H., 1919-21; *Assoc. in Pathol.*, *P. B. B. H.*, May 24, 1921-May 24, 1922; Fellow in Med., Harv., 1923; Asst. in Med., *ibid.*; Asst. in Med., M. G. H.; Asst. Phys., M. G. H.; Phys., Channing Home; Consult. Phys., Mass. Eye and Ear Infirn.; in practice, Boston.

KING, WILLIAM ROBERT

B.S., Univ. of Minn., 1913; M.D., Harv., 1917; *Med. H. O.*, *P. B. B. H.*, July 1, 1917-Feb. 1, 1918; *Asst. Res. Phys.*, *ibid.*, Feb. 1-Oct. 24, 1918; in practice, Minneapolis, Minnesota.

KINNEY, KENNETH K.

M.D., Univ. of Iowa, 1921; Surg. Interne, 1 year, Seattle Gen. Hosp.; private practice, 3 years; *H. O.*, *X-ray Dept.*, *P. B. B. H.*, Oct. 1, 1925-April 1, 1926; *Asst. Res. Roent.*, April 1-Oct. 1, 1926.

KINSMAN, JAMES MURRAY

B.A., Mt. Allison Univ., Sackville, N. B., 1918; M.D., C.M., McGill Univ., 1922; Pathol. Interne, Royal Victoria Hosp., 1922-23; Demonstr. in Pathol., McGill Univ., 1922-23; *Med. H. O.*, *P. B. B. H.*, July 1, 1923-Nov. 1, 1924; Asst. Res. Med., New Haven Hosp., New Haven, Conn.; Asst. Prof. of Med., Univ. of Louisville; in practice, Louisville, Ky.

KIRK, ESLEY J.

M.D., Univ. of Nebraska, 1926; H. O., Douglas Co. Hosp., Omaha, Nebraska, 1926-27; *Asst. Res. Phys.*, *P. B. B. H.*, Aug., 1927-Aug..

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1928; *Jr. Assoc. in Med.*, *ibid.*, Aug., 1928-July, 1929; in practice, Omaha, Neb.

KIRKWOOD, ALLAN STEWART

M.D., Univ. and Bellevue Hosp. Med. Coll., New York, 1913; *Assoc. in Med.*, *P. B. B. H.*, Nov. 1-Dec. 31, 1917; Major, M. C., U. S. Army; Visit. Neuro-Psychiatrist, Mountainside Hosp., Montclair, N. J.; Consult. Phys., Children's Hosp., Montclair, New Jersey; in practice, Montclair, N. J.

KLUMPP, THEODORE G.

B.S., Princeton, 1924; M.D., Harv., 1928; *Med. H. O.*, *P. B. B. H.*, March 1, 1929-July 1, 1930; Lakeside Hosp., Cleveland, Ohio.

KOEFOD, HILMAR OLAF

B.S., Beloit, 1911; M.D., Harv., 1916; Moseley Travelling Fellowship, *ibid.*, in Europe, summer of 1916; *Med. H. O.*, *P. B. B. H.*, Nov. 1, 1916-Nov. 1, 1917; 1st Lieut., M. C., U. S. Army, 1917-18; Chief of Clin. at Mem. Lab. and Clin., Santa Barbara, Cal.; Asst. in Med., Med. Sch., Univ. of Cal.; Asst. to Prof. H. C. Moffit in his private work; Chief of Med. Dept., Santa Barbara Clin.; Attend. Phys., Cottage Hosp., Santa Barbara, Cal.; in practice, Santa Barbara, California.

KOHN, LAWRENCE A.

A.B., Williams, 1914; work in Bacteriol. with Dr. Park, New York, 1914-17; work in Bacteriol. with army in France, 1917-19; 1st Lieut., San. Corps, 1918-19; M.D., Johns Hopkins, 1923; Med. Interne, *ibid.*; *Asst. Res. Phys.*, *P. B. B. H.*, Sept. 15, 1924-Sept. 1, 1925; Instr. in Med., Univ. of Rochester; Res. Phys., Strong Mem. Hosp., Rochester, N. Y., 1925-27; Asst. Prof. Med., Univ. of Rochester; Asst. Phys., Strong Mem. Hosp.; Assoc. Staff, Rochester Gen. Hosp.; in practice, Rochester, N. Y.

KREUTZMANN, HENRY ADOLPH ROBERT

M.D., Univ. of Pa., 1916; *Surg. H. O.*, *P. B. B. H.*, March 1, 1917-Feb. 4, 1918; Lieut., M. C., U. S. Army; Urologist for N. W. P. R. R.; Chief Urol., Chinese Hosp., San Francisco; Instr. in Urol., Stanford Univ.; in practice, San Francisco, California.

LADD, WILLIAM SARGENT

B.S., Amherst, 1910; M.D., Columbia, 1915; *Med. H. O.*, *P. B. B. H.*, Nov. 1, 1915-March 1, 1917; Asst. Phys., Presbyterian Hosp., New York, and Instr. in Med., Columbia, 1918-19; 1st Lieut., M. C., U. S. Army; Asst. in Med., J. H. H., and Instr. in Med., Johns Hopkins, 1919-21; Instr. in Med., Columbia, 1921-24; Assoc. in Med., *ibid.*; Asst. Phys., Presbyterian Hosp., New York, 1924-31; Assoc. Dean and Asst. Prof. Med., Cornell Univ. Med. Coll.

LAMSON, PAUL DUDLEY

A.B., Harv., 1905; M.D., *ibid.*, 1911; Med. House Pupil, M. G. H., 1909-10; Lect. Asst. in Pharm., Univ. of Wurzberg, Germany,

PETER BENT BRIGHAM HOSPITAL

1912-13; Sheldon Travelling Fellow, Harv., 1911-13; *Asst. Res. Phys., P. B. B. H., Oct. 1, 1913-Oct. 15, 1914*; Asst. in Exp. Therapeutics, Johns Hopkins, 1914-15; Assoc. in Pharmacology, *ibid.*, 1916-20; Assoc. Prof. Pharmacology, *ibid.*, 1921-25; Prof. Pharmacology, Vanderbilt Univ. Sch. of Med.

LANMAN, THOMAS HINCKLEY

A.B., Harv., 1912; M.D., *ibid.*, 1916; *Assoc. in Urol., P. B. B. H., March 22, 1920-June 26, 1922*; Asst. Surg., Harv.; Assoc. Visit. Surg., Children's Hosp.; Visit. Surg., Children's Serv., Cambridge Hosp.; in practice, Boston.

LEHMAN, EDWIN PARTRIDGE

A.B., Williams, 1910; M.D., Harv., 1914; *Surg. H. O., P. B. B. H., July 1, 1914-July 1, 1915*; Asst. Res. Surg., Barnes Hosp., St. Louis, Missouri, 1915-16; Asst. in Surg., Washington Univ., 1916-20; 1st Lieut., M. C., U. S. Army, 1917-19; Res. Surg., Barnes Hosp., St. Louis, 1919-20; Instr. in Surg., Instr., Asst. Prof. and Assoc. Prof. Clin. Surg., Washington Univ., 1920-28; Prof. of Surg. and Gyn. and Director, Surg. Dept., Univ. of Va.

LEWIS, EDWIN RAY

M.D., Boston Univ., 1901; Asst. Surg., Clinton Hosp., 1907; Asst. Supt., Mass. Homœopathic Hosp., 1909; Act. Supt., *ibid.*, 1916; Supt., Hahnemann Hosp., Rochester, New York, 1916; Supt., Flower Hosp., 1919-20; Capt., M. C., U. S. Army, 1918-19; *Second Asst. Supt., P. B. B. H., April 11, 1921-Oct. 1, 1923*; Supt., Easton Hosp., Easton, Pennsylvania, 1923-26; Supt., Burbank Hosp., Fitchburg.

LEWIS, JR., WILLIAM H.

A.B., Harv., 1922; M.D., *ibid.*, 1926; Interne, Allegheny Gen. Hosp., Pittsburgh, Pa., July 1, 1926-July 1, 1927; *Med. H. O., P. B. B. H., July 1, 1927-March 1, 1928*; Neurol. H. O., B. C. H., 1928; Res. Pathol., Palmer Mem. Hosp., 1928-29; Res. in Pathol., Huntington Mem. Hosp.; Asst. Pathol., Pondville Hosp.; Asst. in Pathol., Harv., 1929-30; Student at Allgemeines Krankenhaus Eppendorf, Hamburg, 1930-31, and Hôpital dariboisière, Paris, 1931; in practice, Donora, Pa.

LIEB, CLARENCE WILLIAM

A.B., Colorado, 1908; A.M., *ibid.*, 1909; M.D., Harv., 1914; *Pathol. H. O., P. B. B. H., April 1-June 6, 1914 (resigned)*; Med. Director, "The Glen Springs," Watkins, New York, 1914-17 (resigned); in practice, Gastro-enterology, New York.

LIEBMAN, CHARLES

Ph.B., Yale, 1917; M.D., Harv., 1921; X-ray Dept., Base Hosp., Camp Devens; X-ray Dept., Mass. Eye and Ear Inf.; X-ray Dept., New Haven Hosp.; *X-ray H. O., P. B. B. H., June 1, 1921-July 1, 1922*; Roentgenologist, Children's Hosp., Boston, 1922-26; Asst. Roent., Boston Disp. and Beth Isreal Hosp., Boston.

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LOCKE, JR., CHARLES EDWARD

A.B., M.S., Univ. of Cal., 1916; M.D., *ibid.*, 1919; S.D. (*en Chirurgie*), Univ. of Brussels, 1922; Med. and Surg. H. O., Univ. of Cal. Hosp.; *Asst. Res. Surg., P. B. B. H.*, June 15, 1920-June 1, 1921; Asst. on Visit. Surg. Staff, Dr. Depage's Service, St. Pierre Hosp., Brussels; Asst. Etranger, Prof. Pierre Marie's Serv., Salpétrière, Paris, 1921-22; Fellow, C.R.B., Educational Foundation, 1921-22; Asst. Dept. of Surg., Univ. of Cal. Med. Sch.; Fellow, National Research Council, 1922-23; Full-time Instr. in Surg., Univ. of Cal.; Staff, Hooper Research Foundation, 1923-24; Neurol. Surg., Cleveland Clinic. *Died, Cleveland Clinic disaster, May 15, 1929.*

LOURIA, HENRY WALTER

A.B., Columbia, 1916; M.D., *ibid.*, 1919; Surg. H. O., Presbyterian Hosp., New York, 1919-20; *Med. H. O., P. B. B. H.*, July 1, 1920-Oct. 1, 1921; Stud., M. I. T., 1921; Med. Interne, J. H. H., 1921-22; Asst. Surg., Brooklyn Jewish Hosp.; Instr. in Surg., Coll. of Phys. and Surg.; Vol. Asst., Surg. Serv. of Prof. H. Von Haberer, Graz, Austria, Oct., 1927-Feb., 1928; Assoc. Surg., Brooklyn Jewish Hosp.; Asst. Surg., King's Co. Hosp.; in practice, Brooklyn, N. Y.

LUGER, ALFRED

M.D., Univ. of Vienna; Demonstr., Histological Inst., Univ. of Vienna, May, 1909-May, 1911; Klinik Neusser, Vienna, May, 1911-Sept., 1911; Director, Roentgen Lab., Klinik Neusser, Vienna, Sept., 1911-Dec., 1912; *Roentgenologist, P. B. B. H.*, Jan. 1, 1913-June 1, 1914 (granted leave of absence from June 1, 1914-Dec. 14, 1915; Asst. in Roentgenology and Asst. in Med., H. M. S., 1914-15; Army Phys., 1915-18; Asst. Bacteriol. Inst., Prof. Dorr, Vienna, 1918-19; Asst. at II. Med. Clin. (Prof. Ortner), Vienna, 1919-29; Privatdozent f. Innere Medizin, Univ. of Vienna; Ausserordenlich Univ. Prof., *ibid.*; Director of II. Med. Div., Kaiserin Elisabeth Hosp., Vienna.

LYLE, EVELINE BURTON

B.A., Mt. Holyoke Coll., 1906; M.D., Tufts Coll. Med. Sch., 1913; *Act. Assoc. in Med., P. B. B. H.*, Nov. 1-Dec. 31, 1917; Visit. Phys. and Obstetrician, N. E. Hosp. for Women and Children; Med. Examiner for Winsor School, Milton Academy Girls' School, Brookline High School Girls, Boston University School of practical Arts, Penn. Mutual Life Insurance Co., John Hancock Life Ins. Co., United Life and Accident Insurance Co.; in practice, Boston.

LYNCH, JR., JAMES JOSEPH

B.S., Notre Dame Univ., 1915; M.D., Harv., 1919; H.O., Boston Lying-In Hosp., 1919; *Med. H. O., P. B. B. H.*, July 1, 1919-July 1, 1920; H. O., Cambridge City Hosp., 1920-21; Jr. Visit. Obstetrician, St. Elizabeth's Hosp.; Jr. Asst. Surg., Boston Disp.; in practice, Boston.

LYON, DON DEE

S.B., Wash. Univ., 1914; M.D., Harv., 1920; H. O., Huntington Hosp., 1919-20; Interne, Bridgeport Hosp., 1920-21; *Surg. H. O.*,

PETER BENT BRIGHAM HOSPITAL

P. B. B. H., March 1, 1921-July 1, 1922; Res. Phys., Blodgett Mem. Hosp., Grand Rapids, Mich.; Int. Med., Grand Rapids Clin., 1924-25; in practice, Olympia, Washington.

MACMILLAN, STUART FORBES

B.S., Union College, Schenectady, New York, 1920; M.D., Albany Med. College, 1925; Interne, Albany Hosp., 1925-26; *Pathol. H. O., P. B. B. H., July 1, 1926-July 1, 1927*; Asst. Surg. and Surg. to O. P. D., Ellis Hosp., Schenectady; in practice, Schenectady, N. Y.

MALLORY, TRACY BURR

M.D., Harv., 1921; *Med. H. O., P. B. B. H., March 1, 1922-July 1, 1923*; Instr. in Bacteriol., Harv., 1924-26; Instr. in Path., *ibid.*; Pathol., M.G.H.

MANN, ALBERT HOWELL

M. D., Tulane Univ., 1926; *Med. H. O., P. B. B. H., July 1, 1926-Nov. 1, 1927*; in practice, Texarkana, Ark.

MARINUS, CARLETON J.

B.Sc., Syracuse, 1915; M.Sc., *ibid.*, 1917; M.D., Univ. of Mich., 1921; *Med. H. O., P. B. B. H., Nov. 1, 1921-March 1, 1923*; in practice, Detroit, Michigan.

MARKHAM, BLACKWELL

A.B., Univ. of N. C., 1917; M.A., *ibid.*, 1918; M.D., Harv., 1922; *Surg. H. O., P. B. B. H., July 1, 1922-Nov. 1, 1923*; Res. Surg., Fifth Ave., Hosp., 1923-24; Assoc. Attend. Surg., Watts Hosp.; Instr. in Surg., Duke Univ.; in practice, Durham, N. C.

MARLOW, JR., FRANK WILLIAM

B.S., Hamilton, 1923; M.D., Harv., 1927; *Med. H. O., P. B. B. H., July, 1927-Nov., 1928*; Asst. Res., New Haven Hosp.; Asst. in Med., Yale Univ., Nov., 1928-July, 1929; Asst. in Med., Harv.; Asst. in Med., M. G. H.; in practice, Brookline, Massachusetts.

MARLOW, SEARLE BISSET

A.B., Harv., 1912; Stud., Harv., 1 year; M.D., Syracuse, 1916; *Pathol. H. O., P. B. B. H., July 1, 1916-June 11, 1917*; Capt., M. C., U. S. Army, 1918-19; House Surg., Herman Knapp Hosp., New York, 1920-21; Asst. Prof. of Ophthal., Syracuse Univ.; Ophthalmologist, Syracuse Free Disp., St. Joseph's Hosp., General Hosp., and Syracuse Mem. Hosp.; in practice, Syracuse, New York.

MARTIN, PAUL

S.B., Brussels, 1911; M.D., *ibid.*, 1920; Med. Interne, Hosp. St. Pierre, Brussels, 1919-20; Surg. Interne, New Haven Hosp., 1920-21; *Assoc. in Surg., P. B. B. H., Sept. 1, 1921-March 1, 1922*; *Asst. Res. Surg., ibid., March 1-Nov. 1, 1922*; Asst. in Surg., Brussels Univ. Hosp.; in practice, Brussels, Belgium; Arthur Tracy Cabot Fellow, Harv., 1929-30; *Assoc. in Surg., P. B. B. H., Jan.-April, 1930*.

REGISTER OF FORMER MEMBERS OF THE STAFF

MARVIN, FRANK WILLIAM

A.B., Harv., 1910; M.D., *ibid.*, 1914; House Pupil, M. G. H., 1914-15; *Surg. H. O., P. B. B. H., Nov. 1, 1915-March 1, 1916*; Visit. Anesthetist, B. C. H., Newton Hosp., Boston Psychopathic Hosp.; in practice, Boston.

MARVIN, HAROLD MYERS

A.B., Davidson Coll., 1914; M.D., Harv., 1918; *Med. H. O., P. B. B. H., Feb. 13, 1918-Feb. 9, 1919*; Dist. Phys. with Near East Relief, Alexandropol, Armenia, 1919-20; Asst. in Med., Harv.; Asst. in Med., M. G. H., 1920-21; Instr. in Med., Yale, 1921-23; Asst. Prof. of Med., 1923-28; Fellow, John Simon Guggenheim Memorial Foundation, 1926-27 (in laboratory of Sir Thomas Lewis, Univ. of Coll. Hosp. Med. School, London); Asst. Prof. Clin. Med., Yale.

MASON, B. HENRY

M.D., Bowdoin, 1907; Gen. Internship, Maine Gen. Hosp., 1907-08; Asst. Phys., State Asylum, Worcester, Aug., 1908-Nov., 1913; in practice, Portland, Maine, 1913-14; Asst. Phys., Worcester State Hosp., Feb., 1914-May, 1914; Asst. Supt., *ibid.*, May, 1914-June 18, 1918; Act. Supt., *ibid.*, June 18, 1918-April 1, 1921; Neuro-Psychiatrist, Advisory Board A and B, Worcester, Massachusetts, during draft; Asst. Director, Psychopathic Hosp., Ann Arbor, Michigan, April, 1921-Jan., 1923; Neuro-Psychiatrist, U. S. V. B.; Instr. in Psychiatry, Univ. of Mich. Med. School, 1921-23; *First Asst. Supt., P. B. B. H., Jan. 8, 1923-Dec. 1, 1927*; Pres., Conn. Hosp. Assoc., 1929-31; Supt., Waterbury Hosp., Waterbury, Conn.

MASSEE, JOSEPH C.

B.S., John B. Stetson Univ., 1922; M.D., Harv., 1925; *Med. H. O., P. B. B. H., Nov. 1, 1925-March 1, 1927*; Res. Phys., Federal Prison, Atlanta, 1927-28; Assoc. Editor, Journal of the Medical Assoc. of Georgia; Instr. in Med., Emory Univ.; Assoc. Visit. Phys., Grady Hosp., Emory Univ. Hosp., and Georgia Baptist Hosp.; in practice, Atlanta, Ga.

MAUPIN, JR., JAMES L.

A.B., Univ. of Calif., 1921; M.D., Stanford, 1926; Interne, Lane and Stanford Hosp., 1925-27; in practice, Fresno, Calif., 1927-28; Member, Fresno Co. Gen. Hosp. Staff, 1927-28; *Asst. Res. Surg., P. B. B. H., Sept. 1, 1928-March 1, 1929*; Surg. Staff, Fresno Gen. Hosp.

McCANN, WILLIAM SHARP

A.B., Ohio State Univ., 1911; M.D., Cornell, 1915; Asst. Res. Phys., Gen. Mem. Hosp., New York, 1915; *Surg. H. O., P. B. B. H., Nov. 1, 1915-Nov. 1, 1916 (resigned)*; Arthur Tracy Cabot Fellow in charge of Lab. of Surg. Research, Harv.; Capt., M. C., U. S. Army; Instr. in Med., Cornell; Research Fellow, Russell Sage Inst. of Pathol.; Adjunct Visit. Phys., Bellevue Hosp., New York; Assoc. Phys., J. H. H., Baltimore, Md.; Assoc. in Med., Johns

PETER BENT BRIGHAM HOSPITAL.

Hopkins; Assoc. Prof. Med., *ibid.*; Dewey Prof. of Med., Univ. of Rochester, Rochester, N. Y.

McCarthy, Patrick Thomas

B.S., Univ. of Chicago, 1914; M.D., Rush Med. Coll., 1917; *Surg. H. O., P. B. B. H.*, Dec. 15, 1917-Oct. 1, 1918; *Asst. Res. Surg., ibid.*, Oct. 1, 1918-Feb. 9, 1919; Relief Comm., Near East, Armenia, 1919-20; Post Grad. Study in Europe, 1920; *Surg.*, Western Montana Clin., Missoula; in practice, Missoula, Montana.

McCarty, Elba Denton

M.D., Univ. of Mich., 1903; Interne, 2 years, St. Mary's Hosp., Saginaw, E. S., Mich.; Gen. Practice, Merrill, Mich., 1905-09; Priest River, Idaho, 1909-17; *Roentgenologist, P. B. B. H.*, July 1, 1918-Oct. 14, 1919; in practice, Tacoma, Washington.

McClure, Charles Walter

A.B., Ohio State Univ., 1906; M.D., Starling Med. Coll., Ohio, 1910; Med. H. O., St. Francis Hosp., Columbus, Ohio, 1910-11; Asst. in Clin. Med., Starling Med. Coll., 1911-12; Asst. in Med., Univ. of Iowa Med. Sch., 1912-15; Grad. Stud. in Med., Harv., 1915-16; *Asst. Res. Phys., P. B. B. H.*, July 1-Nov. 1, 1916; Alumni Asst. in Med., Harv.; *Res. Phys., P. B. B. H.*, June 7-July 6, 1917; Phys.-in-Chief, St. Luke's Hosp., South Bethlehem, Pa., 1917-18; Capt., M. C., U. S. Army, 1918; *Assoc. in Med., P. B. B. H.*, Feb. 13, 1919-Sept. 1, 1921; Visit. Phys., Mass. Memorial Hospitals; Gastroenterologist, O. P. D., *ibid.*; Member of Sr. Staff in charge of the Div. of Gastro-Intestinal Research, Evans Memorial for Med. Research; Member of staff, B. C. H.; Asst. Prof. of Med., Boston Univ. Sch. of Med.; in practice, Boston.

McEachern, Thomas H.

B.A., Univ. of Mich., 1925; M.D., *ibid.*, 1927; Vol. Asst., Pathol. Dept., Univ. of Mich., July-Nov., 1927; *Med. H. O., P. B. B. H.*, March 1, 1928-July 1, 1929; Pediatric H. O., N. Y. Nursery and Child's Hosp., 1929-30; Asst. Res. Pediatrician, *ibid.*, April 1-July 1, 1930; Res. Pediatrician, *ibid.*, 1930-31; Research Asst. in Pediatrics, Cornell Univ.

McGrath, Robert F.

B.S., Northwestern, 1924; M.D., *ibid.*, 1928; Interne, St. Luke's Hosp., Chicago; *Jr. Assoc. in Med., P. B. B. H.*, Sept. 15, 1929-May 1, 1930; *Asst. Res. Phys., ibid.*, May 1, 1930-Sept. 1, 1930.

McKean, Richard M.

A.B., Univ. of Mich., 1916; M.D., *ibid.*, 1919; *Med. H. O., P. B. B. H.*, Dec. 15, 1919-March 1, 1921; H. O., Infants' Hosp., Boston, 1921; Jr. Phys., Detroit Receiving Hosp., 1921-22; *Assoc., ibid.*; Instr. in Med., Detroit Coll. of Med. and Surg.; Asst. Prof. of Med., *ibid.*; Attend. Phys. and Director of Metabolic Unit, Detroit Receiving Hosp.; Jr. Phys., Harper Hosp.; Consult. in Metab., Herman Kiefer Hosp.; in practice, Detroit, Mich.

REGISTER OF FORMER MEMBERS OF THE STAFF

MCKENZIE, KENNETH G.

M.B., Toronto; M.D., *ibid.*, 1914; Interne, Toronto Gen. Hosp., 1914; Capt., Imp. Army M. C., 1914-19; Instr. in Anat., Univ. of Toronto, 1919 (on leave of absence to work with Dr. Cushing under the Mickle Fellowship of Toronto Univ.); *Asst. Res. Surg., P. B. B. H., Nov. 1, 1922-Nov. 1, 1923*; Surg. Staff, Toronto Gen. Hosp.; in practice, Toronto, Canada.

MCQUESTEN, PHILIP

A.B., Dart., 1911; M.D., Harv., 1915; Stud., B. C. H. (Pathol. Lab.), 1915-16; *Surg. H. O., P. B. B. H., March 1, 1916-July 1, 1917*; *Asst. Res. Surg., ibid., July 1-Aug. 17, 1917*; in practice, Nashua, New Hampshire.

MENARD, OLIVER J.

B.S., Colgate, 1922; M.D., Jefferson Med. College, 1926; Interne, Rochester General Hosp., July 1, 1926-July 1, 1927; Asst. Clin. Phys., Rome State School, July 1, 1927-Oct. 15, 1927; *Med. H. O., P. B. B. H., Nov. 1, 1927-March 1, 1929*; Asst. Res. in Med., Long Island Hosp., Nov.-July, 1929; Asst. in Med., Lahey Clinic, Boston.

MILLET, JOHN ALFRED PARSONS

A.B., Harv., 1910; M.D., *ibid.*, 1914; *Med. H. O., P. B. B. H., Nov. 1, 1914-March 1, 1916*; Internist, New York State Inst. for the Study of Malignant Disease, Buffalo, 1916-19; Capt., M. C., U. S. Army, 1917-19; Asst. Attend. Phys., Buffalo Gen. Hosp.; Assoc. in Med., Buffalo Univ. Med. Sch., and Asst. to the Chiefs of Med. Div., Dept. of Hospitals and Dispensaries, Buffalo, New York, 1916-23; Phys., Austen Riggs Foundation, Stockbridge, Massachusetts, 1923-30; Instr. in Psychiatry, Columbia; Asst. Atten. Psychiatrist (Children) Vanderbilt Clin.; in practice (Psychiatry), New York City.

MILLIKEN, SAMUEL GIBBS

M.D., Univ. of Texas, 1922; Sr. Instr. in Pathol., Univ. of Texas, 1922; *Surg. H. O., P. B. B. H., March 1, 1924-Feb. 1, 1925*; Asst. Prof. of Path., Univ. of Texas; Visit. Phys., Methodist Hosp. and Memorial Hosp., Houston, Texas; in practice, Houston, Texas.

MONTGOMERY, JAMES BLAINE

A.B., Dart., 1911; M.D., Harv., 1915; *Surg. H. O., P. B. B. H., Nov. 1, 1915-March 1, 1917*; House Surg., Mass. Eye and Ear Infirmary, 1917; Grad., Army Med. Sch., 1917; 1st Lieut., M. C., U. S. Army; Major, Med. Corps, U. S. Army, Washington, D. C. *Deceased.*

MOORE, RICHMOND LAWRENCE

A.B., Univ. of Va., 1918; M.D., Harv., 1922; *Surg. H. O., P. B. B. H., Nov. 1, 1922-March 1, 1924*; *Asst. Res. Surg., ibid., July 1, 1924-July 1, 1925*; Asst. Res. Phys., Hosp. of the Rockefeller Inst., New York, July 1, 1925-Aug., 1927; Fellow in Surg., Presbyterian Hosp.; Instr. in Surg., Columbia Univ.

PETER BENT BRIGHAM HOSPITAL

MORRIS, LAIRD M.

M.D., Univ. of Cal., 1916; *Asst. Res. Phys., P. B. B. H., April 15, 1920-Oct. 1, 1920*; Asst. in Med., Univ. of Cal. Med. Sch., 1921-22; Instr. in Med., *ibid.*, 1923; Instr. in Med., Stanford Med. School; in practice, San Francisco, California.

MORRIS, JR., SAMUEL LESLIE

B.S., Davidson (N. C.), 1911; M.D., Harv., 1916; *Surg. H. O., P. B. B. H., Nov. 1, 1916-Nov. 1, 1917*; 1st Lieut., M. C., U. S. Army; 1st Asst. House Surg., St. Louis Southwestern Hosp., 1919; Chief House Surg., *ibid.*; in practice, Atlanta, Georgia.

MORTON, JOHN JAMIESON

A.B., Amherst, 1907; M.D., Johns Hopkins, 1913; *Surg. H. O., P. B. B. H., March 1, 1913-July 1, 1914*; Fellow in Pathol., Rockefeller Inst., New York City, 1914-15; House Surgeon, M. G. H., 1915-16; Asst. Res. Phys., Rockefeller Inst. Hosp., New York, 1916-17; Major, M. C., U. S. Army, 1917-19; practice, Orthopedic Surg., Boston, Massachusetts; Grad. Asst., O. P. D., Children's Hosp., Boston, and Asst. Orthopedic Surg., *ibid.*, 1919-21; Asst. Prof. Surg., Yale, 1921-24; Prof. Surg., Rochester Univ. Sch. of Med. and Dentistry, Rochester, New York.

MUNTER, EDGAR J.

M.D., Univ. of Calif., 1926; Interne, Med. and Surg., Univ. Hosp., San Francisco, 1925-26; Asst. Res. in Med., *ibid.*, 1926-27; *Asst. Res. Phys., P. B. B. H., 1927-28*; Asst. in Med., Univ. of Cal. Med. Sch., 1928-31; Instr. in Med., *ibid.*; Adjunct in Med., Mt. Zion Hosp., San Francisco; in practice, San Francisco, Calif.

NELLANS, CHARLES T.

B.S., Univ. of Chicago, 1916; M.D., Rush Med. Coll., 1918; Mem. Res. Staff, Presbyterian Hosp., Chicago, 1918-19; *Med. H. O., P. B. B. H., Sept. 15, 1919-Nov. 1, 1920*; Asst. in Med., Yale, 1921; Instr. in Med., *ibid.*, and Res. Phys., New Haven Hosp., 1921-22; Instr. in Med., Emory Univ., and Asst. Visit. Phys., Wesley Mem. and Grady Hospitals, Atlanta, Ga.; in practice, Atlanta, Ga.

NICHOL, ARTHUR D.

M.D., Ohio State Univ., 1926; Interne, St. Luke's Hosp., Cleveland, 1926-28; *Asst. Res. Phys., P. B. B. H., Aug., 1928-Aug., 1929*; Demonstr. in Med., Western Reserve Univ., 1929; Assoc. in Med., St. Luke's Hosp., Cleveland, Ohio; Asst. Visitant, Med. Dept., *ibid.*; Asst. Visit. Phys., O. P. D., Lakeside Hosp.

NICHOLS, ALVORD G.

A.B., Colgate, 1916; M.D., Harv., 1921; Interne, Worcester City Hosp., 1921-23; Act. Asst. Supt., *ibid.*; Second Asst. Supt., *P. B. B. H., Sept. 17, 1923-June 1, 1924*; Asst. Med. Director, John Hancock Life Insurance Co., Boston. Died May 18, 1926.

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NICHOLS, 3D, ANDREW

A.B., Harv., 1912; M.D., *ibid.*, 1916; Surg. H. O., B. C. H., 1916-17; Capt., M. C., U. S. Army, 1917-19; *Second Asst. Supt., P. B. B. H., July 1, 1919-Feb. 1, 1921*; in practice, Danvers, Massachusetts.

NOVY, ROBERT LEV

A.B., Univ. of Mich., 1913; M.S., *ibid.*, 1914; M.D., *ibid.*, 1919; *Med. H. O., P. B. B. H., April 15, 1919-April 1, 1920*; in practice, Detroit, Michigan.

O'CONOR, VINCENT JOHN

B.S., Univ. of Mich., 1915; M.D., Rush Med. Coll., 1917; *Surg. H. O., P. B. B. H., Jan. 1, 1917-Jan. 1, 1918*; House Surgeon, Presbyterian Hosp., Chicago, Ill., 1918; 1st Lieut., M. C., U. S. Army, 1918-19; *Asst. Res. Surg., P. B. B. H., Feb. 15, 1919-July 15, 1920*; Urol. Surg., Washington Boulevard Hosp.; Asst. Prof., G. U. Surg., Univ. of Ill., Sch. of Med.; Urol. Surg., Lutheran-Deaconess Hosp., Chicago; Urol. Surg., Garfield Park Hosp.; in practice, Chicago, Illinois.

OLDBERG, ERIC

B.S., Northwestern, 1923; M.S., *ibid.*, 1926; M.D., *ibid.*, 1927; Ph.D., *ibid.*, 1928; Asst. in Chemistry, *ibid.*, 1922-23; Asst. in Physiol. and Pharmacol., *ibid.*, 1925-27; Instr. in Physiol., *ibid.*, 1927-28; Elizabeth J. Ward Fellow in Physiol., *ibid.*, 1927; *Surg. H. O., P. B. B. H., Jan. 1, 1928-Apr., 1929*; *Asst. Res. Surg., P. B. B. H., Apr. 1, 1929-Oct. 1, 1930*; George Gorham Peters Traveling Fellow in Berlin and Oxford, 1930-31; Asst. Prof. of Surg., in charge of Neuro-Surgery, Univ. of Illinois, Chicago, Ill.; Attend. Neuro-Surg., Illinois Research and Education Hosp., and St. Luke's Hosp., Chicago.

O'MEARA, JOHN WILLIAM

A.B., Holy Cross, 1912; M.D., Harv., 1918; *Surg. H. O., P. B. B. H., Jan. 7, 1918-Jan. 7, 1919*; Orthopedic H. O., Children's Hosp., Boston, 1919; Comm. for Relief in Near East, in charge of Surg. Wards, American Hosp., Samsoun, Turkey-in-Asia, 1919-20; Orthopedic Surg., St. Vincent's Hosp., Worcester; Sr. Orth. Surg., Worcester City Hosp.; in practice, Worcester, Massachusetts.

OPPENHEIMER, ELLA

A.B., Bryn Mawr, 1914; M.D., Johns Hopkins, 1918; *Med. H. O., P. B. B. H., Sept. 1, 1918-June 11, 1919*; Phys. in Charge, Baby Summer Hosp. Camp, Washington, D. C., 1920; Examining Phys. (Girls), Juvenile Court, Washington, D. C., 1920-21; Asst. Visit. Phys., Children's Hosp.; Phys., National Training School for Girls; Research Asst., Federal Children's Bureau; Assoc. Pediatrician, Providence Hosp., Washington, D. C.; Director, Div. of Child Hygiene, Children's Bureau, U. S. Dept. of Labor, 1922-24; Residence, Bethesda, Md.

PETER BENT BRIGHAM HOSPITAL

ORMOND, ALEXANDER T.

A.B., Princeton, 1912; M.D., Johns Hopkins, 1919; *Surg. H. O., P. B. B. H.*, Nov. 1, 1919-March 1, 1921. Deceased.

ORMOND, JR., ALFRED CURTIS

A.B., Davidson, 1922; M.D., Harv., 1927; *Surg. H. O., P. B. B. H.*, Oct. 1, 1927-Feb. 1, 1929.

ORR, JR., LOUIS M.

B.S., Emory Coll., 1922; M.D., Atlanta Med. Coll., 1924; Jr. Interne, Grady Hosp., Atlanta, Ga., 1923-24; *Surg. H. O., P. B. B. H.*, July 1, 1924-Nov. 1, 1925; Asst. Res. Surg., Lakeside Hosp., Cleveland; in practice, Orlando, Florida.

OUGHTERSON, ASHLEY W.

M.D., Harv., 1924; M.S., Yale, 1929; *Pathol. H. O., P. B. B. H.*, Jan. 1, 1924-Jan. 1, 1925; *Surg. H. O.*, New York Hosp., Jan. 1, 1925-Jan. 1, 1927; Res. Surg., 1st Surg. Div., Bellevue Hosp., New York, Jan. 1, 1927-July 1, 1927; *Asst. Res. Surg., P. B. B. H.*, 1927-28; William Harvey Cushing Fellow in Surg., Yale Univ., 1928-29; Asst. Prof. of Surg., *ibid.*

PARKER, JR., FREDERICK

A.B., Harv., 1913; M.D., *ibid.*, 1916; *Med. H. O., P. B. B. H.*, March 1-April 1, 1917; Asst. Pathol., B. C. H.

PARKINS, LEROY EDWARD

A.B., Simpson Coll., 1912; M.D., Harv., 1918; Asst. Res., Boston Consumptives' Hosp.; Asst. Res., So. Dept., B. C. H.; *Surg. H. O., P. B. B. H.*, Dec. 1, 1918-March 1, 1920; private practice, Douglas, Wyo.; *Second Asst. Supt., P. B. B. H.*, Jan.-May, 1921; *First Asst. Supt., ibid.*, May 1, 1921-Feb. 1, 1923; in practice, Boston.

PATTERSON, HOWARD A.

M.D., Harv., 1925; Interne, Roosevelt Hosp., New York, 1925-27; House Gynecologist, *ibid.*, 1927-28; *Asst. Res. Surg., P. B. B. H.*, Feb. 1-Sept. 1, 1928; Asst. Surg. to Out-Patients, Roosevelt Hosp., N. Y.; Asst. Attend. Surg., *ibid.*

PEABODY, FRANCIS WELD

A.B., Harv., 1903; M.D., *ibid.*, 1907; House Pupil, M. G. H., 1907-08; Asst. Res. Phys., J. H. H., 1908-09; Fellow in Pathol., Johns Hopkins, 1909-10; Stud. of Chem., Univ. of Berlin, Germany, 1910; Asst. Res. Phys., Hosp. of Rockefeller Inst., 1911-12; Asst., Rockefeller Inst., 1911-12; *Res. Phys., P. B. B. H.*, Nov. 1, 1912-Sept. 1, 1915 (granted leave of absence March 1, 1914-Jan. 1, 1915, to serve as a member of the China Medical Commission of the Rockefeller Foundation); *Asst. Visit. Phys., P. B. B. H.*, Sept. 1-Dec. 9, 1915; Alumni Asst. in Med., Harv., 1913-15; Asst. Prof. of Med., *ibid.*, 1915-19; Consult. Phys., Collis P. Huntington Mem. Hosp., Boston; *Phys., P. B. B. H.*, Dec. 9, 1915-Sept. 1921 (leave of absence Aug. 1, 1917-Feb. 1, 1918, to serve as a member of the American Red

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Cross Comm. to Roumania); Major, M. C., U. S. Army, 1918-19; Assoc. Prof. of Med., Harv., 1920-21; Prof. of Med., *ibid.*; Visit. Phys., B. C. H.; Director, Thorndike Lab., *ibid.*; Member, China Medical Board, Rockefeller Foundation; Member, Board of Scientific Directors, Rockefeller Inst.; *Consult. Phys.*, P. B. B. H., 1921-27. Died Oct. 13, 1927.

PECK, EUGENE CURTIS

A.B., Harv., 1916; M.D., *ibid.*, 1919; *Med. H. O.*, P. B. B. H., July 1, 1919-July 1, 1920; Instr. in Physiol. Chem., Tulane Univ., New Orleans, La.; Asst. in Pediatrics, Harv.; Prof. of Biochemistry and Physiol., St. John's Univ., Shanghai, China, 1922-25; H. O., Children's Med. Serv., M. G. H., 1925-26; Pediatrician, Lawrence and Mem. Assoc. Hosp., New London, Conn.; in practice, New London, Conn.

PENFIELD, WILDER GRAVES

Litt.B., Princeton, 1913; B.A., Oxford, 1916; M.A. and B.Sc., *ibid.*, 1920; M.D., Johns Hopkins, 1918; *Surg. H. O.*, P. B. B. H., Aug. 15, 1918-Sept. 20, 1919; Beit Mem. Research Fellow, England; Assoc. Attend. Surg., Presbyterian Hosp., New York; Asst. Prof. of Surg., Columbia Univ.; Asst. Surg., Neurol. Inst. of New York; Attend. Neurol., Vanderbilt Clin.; Prof. Neurology and Neuro-Surgery, McGill Univ.; Surg. in charge Neurol. Surg., Royal Victoria Hosp.; Consult. Neurol. Surg., Montreal Gen. Hosp.; in practice, Montreal.

PETTIT, ROSWELL TALMADGE

S.B., Univ. of Chicago, 1908; M.D., Rush Med. Coll., 1913; *Med. H. O.*, P. B. B. H., March 1, 1914-July 1, 1915; Asst. Med. Director, Ottawa Tuberculosis Colony, Ottawa, Ill.; Phys., Illinois Valley Hosp., Ottawa, Ill.; Capt., M. C., U. S. Army; in practice, Ottawa, Illinois.

PILCHER, COBB

M.D., Vanderbilt Univ., 1927; *Surg. H. O.*, P. B. B. H., July 1, 1927-Nov. 1, 1928; Asst. Res. Phys., Vanderbilt Univ. Hosp., Nashville, Tenn., 1928-29; Asst. Res. Surg., *ibid.*, July, 1929-Jan., 1931; Res. Surg., *ibid.*, 1931-32; Instr. in Surg., *ibid.* (on leave of absence); Special Student, Dept. of Neuro-Surg., Univ. of Chicago, Feb.-May, 1932; Fellow in Neuro-Surg., Washington Univ. School of Med., St. Louis, Mo.

PINKERTON, HENRY

S.B., M. I. T., 1918; M.D., Harv., 1924; *Pathol. H. O.*, P. B. B. H., July 1, 1924-July 1, 1925; Res. Pathol., Children's Hosp., Boston, July, 1925-July, 1926; *Res. Pathol.*, P. B. B. H., Sept. 1, 1926-Sept. 1, 1927; Instr. in Pathol., Harv.

POTTER, WILLIAM HENRY

A.B., Harv., 1878; D.M.D., *ibid.*, 1885; A.M., Hon., *ibid.*, 1927; Demonstr. in Operative Dentistry, Harv., 1887-88; Clin. Lecturer,

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ibid., 1890-96; Lecturer, *ibid.*, 1896-1900; Asst. Prof., *ibid.*, 1900-04; Prof., Operative Dentistry, *ibid.*, 1904-1927; Prof. Emeritus, *ibid.*, 1927; Dental Surgeon, "Ambulance American Hospital" at Neuilly, France, 1914-15; 1st Lieut., Major, and Lieut. Col., Dental Corps, U. S. A., 1917-19, A. E. F.; Member, U. S. A. Base Hosp. No. 5, A. E. F.; Instr., Dental Dept., U. S. A. Sanitary School, Langres, 1918-19; *Consulting Dental Surg.*, P. B. B. H. Died July 27, 1928.

POTTS, JR., WILLIAM HENRY

A.B., Univ. of Texas, 1922; M.D., Harv., 1926; *Med. H. O.*, *P. B. B. H.*, March 1, 1926-July 1, 1927; Asst. Clin. Med., Baylor Univ., 1927-29; Instr. Clin. Med., *ibid.*; in practice, Dallas, Texas.

POWERS, JOHN HOWARD

A.B., Bates, 1919; B.A., Oxon, 1923; M.D., Harv., 1925; Surg. H. O., Lakeside Hosp., Cleveland, Ohio, 1925-26; *Asst. Res. Surg.*, *P. B. B. H.*, Oct. 15, 1926-Sept. 15, 1927; Arthur Tracy Cabot Fellow in charge of Lab. of Surg. Research, Harv.; *Assoc. in Surg.*, *P. B. B. H.*, Sept., 1927-Oct., 1928; *Res. Surg.*, *ibid.*, Oct. 15, 1928-July 1, 1930; *Assoc. Surg.*, Mary Imogene Bassett Hosp., Cooperstown, New York.

PRICE, JAMES VALENTINE

A.B., Univ. of N. C., 1915; M.D., Johns Hopkins, 1919; *Surg. H. O.*, *P. B. B. H.*, Oct 15, 1919-March 1, 1921; Guggenheim Bros., La Paz, Bolivia, S. A.

PUTNAM, TRACY JACKSON

A.B., Harv., 1915; M.D., *ibid.*, 1920; Asst. Res. Pathol., J. H. H., 1920-21; *Asst. Res. Surg.*, *P. B. B. H.*, Nov. 1, 1923-Oct. 1, 1924; Moseley Traveling Fellow, Harv., 1925; Arthur Tracy Cabot Fellow, *ibid.*, 1925-26; *Assoc. in Surg.*, *P. B. B. H.*, 1925-28; Instr. in Neuropathol., Harv.; Asst. Visit. Phys. in Neurol. and Asst. Visit. Surg. for Neuro-Surg., B. C. H.

QUINLAND, WILLIAM SAMUEL

B.S., M.D., Rosenwald Fellow in Pathol., Harv., Sept., 1919-April, 1921; *Asst. in Pathol.*, *P. B. B. H.*, April 14, 1921-July 28, 1922; Pathol., G. W. Hubbard and M. E. Hale Hospitals and Prof. of Pathol., Meharry Med. Coll., Nashville, Tennessee; *Assoc. Med. Director*, Geo. W. Hubbard Hosp., Nashville, Tenn.

RAGSDALE, LUNEV VARNON

A.B., Univ. of Ala., 1917; M.D., Harv., 1924; *Second Asst. Supt.*, *P. B. B. H.*, June 1-Dec. 15, 1924; *Med. H. O.*, *ibid.*, Dec. 15, 1924-March 1, 1926; Clin. Instr. in Med., Univ. of Alabama; Asst. Clin. Prof. Med., *ibid.*, 1931; Associate, American College of Physicians, 1930; Asst. Director, M. G. H.

RAND, CARL WHEELER

A.B., Williams, 1908; A.M., *ibid.*, 1909; M.D., Johns Hopkins, 1912; Res. H. O., J. H. H., 1912-13; *Asst. Res. Surg.*, *P. B. B. H.*,

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Oct. 1, 1913-Nov. 1, 1914; House Surg., Mercy Hosp., Chicago, Ill., 1914-15; Lieut., M. C., U. S. Army; Clin. Prof. Surg., (Neurological) Univ. of California; in practice, Los Angeles, Calif.

RAPPORT, DAVID

A.B., Harv., 1912; M.D., *ibid.*, 1916; Moseley Travelling Fellow, Harv., 1916-17; *Med. H. O., P. B. B. H.*, March 1-June 17, 1917; Lieut., M. C., U. S. Army, 1917-19; Austin Teaching Fellow in Physiol., Harv., 1919-20; Instr. in Physiol., *ibid.*; Research Fellow in Physiology, Cornell Univ. Med. Coll., 1921-24; Sr. Instr. in Physiol., Western Reserve Univ. Med. Sch., 1924-26; Asst. Prof. Physiol., *ibid.*, 1926-29; Prof. Physiol., Tufts Med. School.

RAWLINGS, J. MOTT

B.S., Princeton, 1921; M.D., Johns Hopkins, 1925; Interne, *ibid.*, 1925-26; Instr. in Pathol., *ibid.*, 1926-27; H. O. Med. Serv., Baltimore City Hosp., 1927-28; *Pathol. H. O., P. B. B. H.*, July 1, 1928-July 1, 1929.

READ, JAMES S.

B.A., Vanderbilt Univ., 1921; M.D., *ibid.*, 1924; Interne, Louisville City Hosp., 1924-26; Asst. Res. Phys., *P. B. B. H.*, July 1, 1926-July 1, 1927; in practice, Nashville, Tenn.

REIFENSTEIN, BENEDICT W.

B.S., Syracuse, 1920; M.D., *ibid.*, 1922; Pathol. H. O., Hosp. of the Good Shepherd, Syracuse, N. Y.; *Pathol. H. O., P. B. B. H.*, July 1, 1922-July 1, 1923; Med. H. O., New Haven Hosp., 1923-24; Asst. Phys., Syracuse Univ. Hosp. of the Good Shepherd; Inst. in Med., Syracuse Univ. College of Med.; in practice, Syracuse, New York.

RENNIE, THOMAS A. C.

B.S., Univ. of Pittsburgh, 1924; M.D., Harv., 1928; *Med. H. O., P. B. B. H.*, Nov. 1, 1928-March 1, 1930.

REYNOLDS, LAWRENCE

A.B., Univ. of Ala., 1912; M.D., Johns Hopkins, 1916; Capt., M. C., U. S. Army, 1917-19; *Roentgenologist, P. B. B. H.*, Oct. 15, 1919-June 1, 1922; Roentgenologist, Children's Hosp., Boston, 1922; Roentgenologist, Children's Free Hosp., Detroit, Mich.; Asst. Roentgenologist, Harper Hosp., Detroit; Editor, Am. Journal of Roent.; in practice, Detroit, Mich.

RHEA, LAWRENCE JOSEPH

B.S., Univ. of Texas, 1901; M.D., Johns Hopkins, 1905; H. O. in Pathol., B. C. H., 1906-07; Second Asst. in Pathol., *ibid.*, 1907; First Asst. in Pathol., *ibid.*, 1907-08; Asst. Visit. Pathol., *ibid.*, 1908-09; Asst. in Pathol., Harv., 1908-09; Instr. in Pathol., *ibid.*, 1909-10; Asst. Pathol., B. C. H., 1909-10; Director of Pathol. Lab. and Pathol., Montreal Gen. Hosp., 1910-12; Lect. in Pathol., McGill Univ., 1910-11; Asst. Prof. of Pathol., *ibid.*, 1911-12; *Res. Pathol., P. B. B. H.*, July 1, 1912-Oct. 1, 1913; Asst. Prof. of Pathol., Harv.,

PETER BENT BRIGHAM HOSPITAL

1912-13; Assoc. Prof. of Pathol., McGill Univ.; Major, Canadian Army Med. Corps., Pathol., Children's Memorial Hosp., Montreal; Pathol., Foundlings' Hosp., Montreal; Director, Pathol. Lab., Montreal Div. of Shriner's Hosp.; Director of Pathol. Lab., Montreal General Hosp.

RHOADS, CORNELIUS PACKARD

A.B., Bowdoin, 1920; M.D., Harv., 1924; *Surg. H. O., P. B. B. H., July, 1924-May 18, 1925*; Assoc. in Pathol., Boston City Hosp., 1926-27; Instr. in Pathol., Harv., 1927-28; Assoc., Rockefeller Inst. for Med. Research.

RICHARDSON, HENRY BARBER

A.B., Harv., 1910; M.D., *ibid.*, 1914; *Med. H. O., P. B. B. H., March 1, 1915-July 1, 1916*; Asst. in Med., Johns Hopkins; Asst. Disp. Phys., J. H. H.; First Lieut., M. C., U. S. Army, 1918-19; Instr. in Med., Columbia Univ., New York, and Asst. Adjunct Visit. Phys., Bellevue Hosp., New York, 1921; Instr. in Med., Cornell, and Research Fellow, Russel-Sage Inst. of Pathol., Bellevue Hosp., New York; Visit. Phys., Bellevue Hosp.; Asst. Prof. of Med., Cornell Univ. Med. Coll., New York.

RIDDLE, MATTHEW C.

B.A., Reed College, 1917; M.A., Univ. of Oregon, 1922; M.D., Harv., 1926; Huntington Mem. Hosp., March-June, 1926; *Med. H. O., P. B. B. H., Nov. 1, 1926-March 1, 1928*; Res. Interne and Jr. Research Asst., Simpson Mem. Inst. for Med. Research; Fellow in Med., National Research Council; in practice, Portland, Ore.

RINGER, MICHAEL

B.S., Coll. of City of New York, 1915; M.D., Cornell, 1919; Instr. in Exper. Med., Yale, 1919-21; Instr. in Physiol., Cornell, 1921-23; *Med. H. O., P. B. B. H., Nov. 1, 1923-Jan. 1, 1925*; in practice, New York.

RIOCH, DAVID M.

B.A., Butler Coll., Indianapolis, 1920; M.D., Johns Hopkins, 1924; *Surg. H. O., P. B. B. H., Nov. 1, 1924-March 1, 1926*; Asst. Res. Surg., *ibid.*, March-April, 1926; Asst. Med. Res., Strong Mem. Hosp., Rochester, N. Y., April 1, 1926-July 1, 1927; Instr. in Med., Univ. of Rochester Sch. of Med., July 1, 1927-Sept. 15, 1928; Nat. Research Council Med. Fellow, Sept. 15, 1928-Sept. 15, 1930; Assoc. in Physiol., Johns Hopkins Med. Sch., 1930-31; Asst. Prof. Anat., Harv.

ROONEY, JAMES STEWART

Univ. of Calif., 1917-21; M.D., Harv., 1926; *Pathol. H. O., P. B. B. H., Jan. 1-Oct. 1, 1926*; Res. Pathol., Long Island Hosp., Oct. 1, 1926-June 1, 1927; Res. Phys., *ibid.*, 1927-28; Instr. in Pathol., Harv.; Pathol., Charles Choate Mem. Hosp., Woburn, Faulkner Hosp., Boston, Industrial Accident Board, Commonwealth of Mass., Lynn Hosp., Lynn, Malden Hosp., Malden, Women's Hosp., Boston,

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Moore Hosp., Brockton, Norwood Hosp., Norwood, Peterborough Hosp., Peterborough, N. H., Symmes Arlington Hosp., Arlington, Weymouth Hosp., Weymouth, Whidden Mem. Hosp., Everett.

ROOT, HOWARD FRANK

A.B., Harv., 1913; M.D., *ibid.*, 1919; *Med. H. O., P. B. B. H.*, Feb. 13, 1919-Jan. 1, 1920; Clin. Lab., J. H. H., 1920; Phys., N. E. Deaconess Hosp.; *Assoc. in Med., P. B. B. H.*, April 13, 1922-Dec. 31, 1930; in practice, Boston, Mass.

Ross, J. PATERSON

M.B., M.S., London; F.R.C.S., England; St. Bartholomew's Hosp., England; *Jr. Assoc. in Surg., P. B. B. H.*, April 9, 1923-Sept. 14, 1923.

RUBLEE, C. D.

M.D., Univ. of Vt., 1922; in practice, 1922-28; *Roent. H. O., P. B. B. H.*, Nov. 1, 1928-Feb. 1, 1929; in practice, Newport, Vt.

SAEGER, ERNEST TIRRILL

B.S., Dart., 1914; M.D., Harv., 1917; *Surg. H. O., P. B. B. H.*, July 1, 1917-Aug. 1, 1918; Res., First Surg. Division, Bellevue Hosp., New York; in practice, Boston.

SAGEBIEL, JAMES LAMBERT

B.S., Denison Univ., 1924; M.D., Harv., 1927; *Surg. H. O., P. B. B. H.*, Oct. 1, 1927-Feb. 1, 1929; H. O., Boston Lying-In Hosp., Mar. 1, 1929- Sept. 15, 1929; Jr. Assoc. in Neurol., Miami Valley Hosp.; in practice, Dayton, Ohio.

SCARFF, JOHN E.

B.S., Princeton, 1920; M.D., Johns Hopkins, 1924; experimental lab. work, *ibid.*, 1924-25; H. O., *ibid.*, 1925-27; *Surg. H. O., P. B. B. H.*, March 1, 1927-July 1, 1928; Asst. Res. Surg., *ibid.*, July 1, 1928-July 1, 1930; Res. Surg., *ibid.*, July 1, 1930-Oct. 1, 1930; Jr. Attend. Neuro-Surg., Bellevue Hosp., N. Y.; Instr., Neuro-Surg., N. Y. Post-Graduate Med. Sch. and Hosp.; in practice, (Neuro-Surgery) N. Y.

SCHLESINGER, MONROE J.

B.S., Coll. City of New York, 1912; Ph.D., Harv., 1920; M.D., *ibid.*, 1926; Asst., N. Y. H. D. Research Lab., 1912-14; Asst. Bacteriol., West Penn. Hosp., Pittsburgh, 1914-17; Asst. in Preventive Med. and Hygiene, *ibid.*, 1917-20; Instr., *ibid.*, 1920-22; Asst. in Pathol., *ibid.*, 1922-23; Research Asst. in Pathol., *ibid.*, 1923-25; *H. O. Pathol., P. B. B. H.*, July 1, 1925-July 1, 1926; Res. Pathol., Children's Hosp., Boston, 1926-27; Instr. in Pathol., Harv.; Pathol., Beth Israel Hosp., Boston.

SCHMITZ, HENRY L.

B.S., Univ. of Chicago, 1920; M.S., Univ. of Wis., 1922; Ph.D., Univ. of Wis., 1924; M.D., Harv., 1926; Med. H. O., Huntington Mem. Hosp., Boston, July, 1926-Dec., 1926; *Med. H. O., P. B. B. H.*

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March 1, 1927-July 1, 1928; Lasker Fellow and Instr., Dept. of Med. Univ. of Chicago, 1928-30; Asst. Prof. of Med., *ibid.*

SCHNECK, ROBERT J.

M.D., Harv., 1925; Interne, St. Luke's Hosp., Chicago, 1925-26; *Med. H. O., P. B. B. H.*, July 1, 1926-Nov. 1, 1927; *Asst. Res. Phys.*, *ibid.*, 1927-28; Instr. in Med., Detroit Coll. of Med.; Jr. Assoc. in Med., Detroit Receiving Hosp.; Assoc. Phys., O. P. D., Harper Hosp., Detroit; in practice, Detroit, Mich.

SCHOLEFIELD, BERNARD GRAHAM

B.A., Oxford, 1921; M.A., B.M., B.Ch., *ibid.*, 1923; M.D., Oxford, 1927; F.R.C.S., England, 1928; M.Ch., Oxon, 1931; Stud., St. Peter's College, Westminster, London, 1912-17; 2nd Lieut., Royal Engineers, 1917-19; Student, Guy's Hosp., London, 1922-23; House Surgeon, *ibid.*, 1924-25; Commonwealth Fund Fellow, Johns Hopkins Univ., 1925-26; *Asst. Res. Surg., P. B. B. H.*, Aug. 1, 1926-July 10, 1927; Surg. Registrar, Guy's Hosp., London, England.

SCHREIBER, FREDERIC

A.B., Univ. of Mich., Ex. 1918; Ensign, U. S. N., 1918-19; M.D., Harv., 1923; Interne, Harper Hosp., 1923-25; Asst. to Dr. Max Ballin, 1925-28; Assist. in Surg., O. P. D., Harper Hosp., 1926; *Asst. Res. Surg., P. B. B. H.*, Oct. 1, 1928-Aug. 1, 1929; Neuro-Surg., Harper Hosp., Receiving Hosp., Children's Hosp. of Mich.; Consult. Neuro-Surg., Deaconess Hosp., Sigma Gamma Clin., North End Clin.; in practice, Detroit, Mich.

SCHUMACHER, IRWIN C.

A.B., Univ. of Cal., 1915; M.D., Johns Hopkins, 1919; *Asst. Res. Phys., P. B. B. H.*, Oct. 1, 1920-Sept. 1, 1921; Asst. Prof. Med., Univ. of Cal.; in charge, Clin. Pathol. Dept., and Allergy Clin., Director of Clin. Labs., and Visit. Phys., Univ. of Cal. Hosp.

SCHWARTZ, CHARLES WADSWORTH

Ph.B., Yale, 1914; M.D., Harv., 1919; *H. O., X-ray Dept., P. B. B. H.*, Feb. 20, 1919-Feb. 20, 1920; Roentgenologist, New York Neurol. Inst.; in practice, New York.

SCOTT, W. J. MERLE

A.B., Oberlin, 1914; M.D., Johns Hopkins, 1918; A.M., Columbia Univ., 1922; First Lieut., M. C., U. S. Army, 1918-19; Asst. in Surg., Henry Ford Hosp., Detroit, Mich., 1918-21; Fellow in Exper. Pathol., Montefiore Hosp., 1921-22; Arthur Tracy Cabot Fellow, Harv., 1922-23; Asst. in Surg., *ibid.*, 1923; *Assoc. in Surg., P. B. B. H.*, Sept. 1, 1922-July 1, 1923; *Asst. Res. Surg., ibid.*, July 1, 1923-July 1, 1924; Res. Surg., Lakeside Hosp., and Instr. in Surg., Western Reserve Univ., Cleveland, Ohio, 1924-26; Asst. Surg., Strong Mem. and Rochester Municipal Hosp., 1926-27; *Assoc. Surg., ibid.*; Asst. Prof. Surg., Univ. of Rochester, Rochester, N. Y., 1926-27; *Assoc. Prof. Surg., ibid.*

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SHAMBAUGH, JR., GEORGE E.

A.B., Amherst, 1924; M.D., Harv., 1928; *Med. H. O., P. B. B. H.*, Nov. 1, 1928-Mar. 1, 1930.

SHELBURNE, SAMUEL A.

B.A., Rice Inst., Houston, Texas; M.D., Univ. of Pa., 1928; H. O., Univ. Hosp., Phil.; Lab. work, Shreveport Charity Hosp.; *Asst. Res. Phys., P. B. B. H.*, July 1, 1929-July 1, 1930; Asst. in Clin. Med., Baylor Med. Sch., Dallas Texas.

SHRADER, JOHN C.

B.S., Univ. of Iowa, 1920; M.D., *ibid.*, 1922; Med. Interne, Univ. Hosp., Iowa, 1922-23; Hosp. Chem., *ibid.*, 1923-24; *Asst. Res. Phys., P. B. B. H.*, July, 1924-Aug., 1926; Chief Res., Emory Div., Grady Hospital, Atlanta, Georgia, 1926-27; in practice, Ft. Dodge, Iowa.

SIMON, HILDA AMANDA

M.D., Cooper, 1905; *Third Asst. Supt., P. B. B. H.*, Oct. 5, 1917-March 1, 1919; Supt., Lynn Hosp., Lynn, Mass. (*resigned*); City Health Dept., Seattle, Wash. *Died June 7, 1929.*

SIMPSON, SUTHERLAND E. R.

A.B., Cornell, 1921; M.D., Harv., 1925; *Med. H. O., P. B. B. H.*, March 1, 1926-Aug. 1, 1926.

SISSON, WARREN RICHARDS

A.B., Colgate, 1906; Stud. of Med., Freiburg, Germany (summer semester), 1910; Stud., Univ. of Munchen (winter semester), 1910-11; Stud., Univ. of Heidelberg (summer semester), 1911; M.D., Johns Hopkins, 1912; House Pupil, M. G. H., Children's Med. Ward, 1912-13; *Med. H. O., P. B. B. H.*, March 1, 1913-March 1, 1914; *Res. Pathol., ibid.*, March 1, 1914-April, 1915; Instr. in Pathol., Harv., 1914-15; H. O., B. C. H., So. Dept., summer of 1915; Sr. H. O., Boston Floating Hosp., 1915; Instr. in Pediatrics, Johns Hopkins; Instr. in Pediatrics, Harv.; Visit. Phys., Boston Lying-In Hosp.; Asst. Phys., Children's Hosp.; in practice, Boston.

SMILLIE, WILSON GEORGE

A.B., Colorado, 1908; M.D., Harv., 1912; D.P.H., *ibid.*, 1916; *Med. H. O., P. B. B. H.*, Nov. 1, 1912-March 1, 1914; *Asst. Res. Phys., ibid.*, March 1-Sept. 1, 1914; Asst. Instr., Dept. of Preventive Med., Harv., 1914-16; Research Fellow, Rockefeller Inst., New York City, 1916-17; International Health Board of Rockefeller Foundation, 1917; loaned by the board as Asst. Prof. Hygiene de Faculdade de Medicina, Sao Paulo, Brazil, 1918-20; Director, Institute Hygiene; Prof. of Hygiene, Faculdade de Medicina e cirurgia, Sao Paulo, Brazil, 1920-22; Director of Training Base, International Health Board, Andalusia, Ala., 1922-25; Asst. Director for U. S., International Health Board, New York; Prof., Public Health Adm., Harv. School of Public Health.

PETER BENT BRIGHAM HOSPITAL

SMITH, BARNEY BARR

M.D., Jefferson, 1917; H. O., Jewish Hosp., Philadelphia, Pa., 1917-18; First Lieut., M. C., U. S. Army, 1918-19; Asst., X-ray Dept., Lincoln and Beth Israel Hosp., New York City, 1920; *H. O., X-ray Dept., P. B. B. H.*, April 15, 1920-April 21, 1921; Assoc. Roent., City Hosp., Buffalo; Instr. in Radiology, Univ. Buffalo Med. Sch.; Roent., Marine Hosp., Buffalo; in practice, Buffalo, New York.

SMITH, JUDSON ARTHUR

A.B., Harv., 1915; M.D., *ibid.*, 1918; *Med. H. O., P. B. B. H.*, Feb. 14, 1918-Jan. 30, 1919; Surg. Serv., New Haven Hosp.; *Asst. Res. Surg., P. B. B. H.*, June 15, 1921-July 1, 1922; H. O., Boston Lying-In Hosp., 1922-23; Res. Obstetrician, *ibid.*, 1923-24; in practice, Boston.

SMITH, W. CARTER

B.S., Emory Univ., 1924; M.D., *ibid.*, 1926; Interne, Grady Hosp., Atlanta, Ga., 1926-27; Asst. Res. Phys., Vanderbilt Univ. Hosp., 1927-28; *Jr. Assoc. in Med., P. B. B. H.*, Sept. 1, 1928-Sept. 1, 1929; Res. Phys., Grady Hosp. (Emory Univ.), 1929-30; in practice, Atlanta, Georgia.

SMITH-PETERSEN, MARIUS NYGAARD

B.S., Univ. of Wis., 1910; Univ. of Wis. Med. Sch., 1910-12; M.D., Harv., 1914; *Surg. H. O., P. B. B. H.*, July 1, 1914-Nov. 1, 1915; Res. Surg., Harv. Unit, Am. Ambulance Hosp., Paris, France, April-July, 1918; House Pupil, M. G. H. (Orthopedic Serv.), 1916; Visit. Orthopedic Surg., M. G. H.; Chief, Orthopedic Serv., M. G. H.; Asst. Prof. Orthopedics, Harv.; in practice, Boston.

SOOY, DANIEL WARREN

M.D., Univ. of Cal., 1917; *Asst. Res. Surg., P. B. B. H.*, Sept. 1, 1921-July 1, 1922; Instr. in Surg., Univ. of Cal. Med. Sch.; in practice, San Francisco.

SPIES, THOMAS D.

M.D., Harv., 1927; *Pathol. H. O., P. B. B. H.*, Jan. 1, 1928-Jan. 1, 1929.

SPILLMAN, RAMSAY

A.B., Cornell, 1914; M.D., *ibid.*, 1917; *Surg. H. O., P. B. B. H.*, July 1, 1917-March 1, 1918; Columbia Hosp., Washington, D. C., 1918-19; Asst. Roent., Manhattan Eye, Ear, and Throat Hosp.; in practice (Roentgenology), New York City.

SPURLING, ROY G.

A.B., Univ. of Mo., 1920; A.M., *ibid.*, 1923; M.D., Harv., 1923; *Surg. H. O., P. B. B. H.*, Nov. 1, 1923-March 1, 1925; *Asst. Res. Surg., ibid.*, March 1-Sept. 1, 1925; Res. Surg., Louisville City Hosp., Louisville, Ky.; Instr. in Surg., Univ. of Louisville Sch. of Med.; Asst. Prof. Surg., *ibid.*

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STATER, WAYNE J.

A.B., Univ. of Oregon, 1917; M.D., Harv., 1921; *Surg. H. O., P. B. B. H.*, March 1, 1922-July 1, 1923; in practice, Portland, Oregon.

STECHER, ROBERT M.

B.S., Dart., 1919; M.D., Harv., 1923; *Med. H. O., P. B. B. H.*, Nov. 1, 1924-Nov. 1, 1925; Research Asst. in Med., Cleveland City Hosp.; Asst. Visit. Phys. in General Med. and Phys. in Med. in the O. P. D., Cleveland City Hosp.; Desert San. of So. Arizona, Tucson, Ariz., (on leave Oct. 1, 1931-May 1, 1932, for Clin. Research).

STELLAR, ROBERT W.

B.S., Occidental Coll., Cal., 1919; Univ. of Cal., 2 years; M.D., Harv., 1923; *Surg. H. O., P. B. B. H.*, Nov. 1, 1923-March 1, 1925; in practice (traumatic surgery), Wilmington, Calif.

STEVENS, FRANKLIN AUGUSTUS

B.S., Univ. of Iowa, 1913; M.D., *ibid.*, 1915; Res. Phys., Univ. Hosp., Iowa, 1915; Instr. in Med., Univ. of Iowa, 1916-17; *Asst. Res. Phys., P. B. B. H.*, July 21, 1917-Jan. 1, 1918; M. C., U. S. Army, 1918-19; Coolidge Fellow in Med., Columbia Univ., New York, 1919-20; Instr. in Med., *ibid.*; in practice, New York City.

STEVENS, WILLIAM B.

M.D., Harv., 1924; Asst. Res., Thorndike Lab., B. C. H., 1924-25; Interne, 4th Med. Service, *ibid.*, 1925-26; *Asst. Res. Phys., P. B. B. H.*, Dec. 1, 1926-Aug. 22, 1927; Jr. Visit. Phys., B. C. H.; Member, Assoc. Staff, Faulkner, N. E. Deaconess, Robert B. Brigham Hosp., Boston; Asst. in Med., Harv.; in practice, Boston.

STEWART, STEELE FULLER

B.S., Westminster, Pa., 1912; M.D., Univ. of Pa., 1918; *Surg. H. O., P. B. B. H.*, June 1, 1918-July 1, 1919; Orthopedic Service, Children's Hosp., Boston, 1920; Orthopedic Service, M. G. H., 1921-22; Assoc. Orthopedic Surg., Children's Hosp., Los Angeles, 1922; Asst. Orthopedic Surg., *ibid.*; Jr. Orthopedic Surg., Los Angeles Gen. Hosp.; Orthopedic Surg., San Bernardino County Welfare Commission; Orthopedic Consultant, Nat. Home for Disabled Volunteer Soldiers, Sawtelle, Calif.; Asst. Prof. Surg. (Orthopedics), Univ. of So. California; in practice, Los Angeles, Calif.

STIMSON, HORACE POTTE

A.B., Amherst, 1918; M.D., Harv., 1922; *Surg. H. O., P. B. B. H.*, March 1, 1923-July 1, 1924; *Asst. Res. Surg., ibid.*, Sept. 8-Dec. 12, 1924; Phys. of Fogg Museum Archæological Expedition to Mongolia, 1925; in practice, Miami, Florida, 1926-28; Assoc. in Traumatic Surg., Clin. of Drs. Forrester, Stimson and Mason.

STODDARD, JAMES LEAVITT

A.B., Harv., 1910; M.D., *ibid.*, 1914; *Pathol. H. O., P. B. B. H.*, July 1, 1914-July 1, 1915; *Act. Res. Pathol., ibid.*, July 1-Sept. 1, 1915; Research Fellow in Pathol., Harv.; Major, M. C., U. S.

PETER BENT BRIGHAM HOSPITAL

Army, 1917-19; Lect. in Biochemistry, Smith Coll., 1920-21; Asst. Prof. Biochemistry, Smith Coll., 1921-22; Chemist, M. G. H.; Asst. in Med., Harv.

STONE, ERIC PERCY

B.S., Harv., 1914, as of 1915; M.D., *ibid.*, 1918; *Surg. H. O., P. B. B. H., May 15, 1918-July 1, 1919*; *Asst. Res. Surg., ibid., Oct. 1, 1919-June 15, 1920*; Surg. in Charge, Urol. Serv., Prov. City Hosp.; Asst. Surg., Gynæcological Serv., R. I. Hosp.; Consult. Urol., Prov. Lying-In Hosp.; in practice, Providence, Rhode Island.

STONE, GEORGE HENRY

A.B., Bowdoin, 1905; M.D., *ibid.*, 1908; H. O., Maine Gen. Hosp., 1908-09; in practice, Clinton, Mass., 1909-11; H. O., B. C. H., 1912-13; Exec. Asst., *ibid.*, 1913-15; *Third Asst. Supt., P. B. B. H., Feb. 1, 1915-May 1, 1917*; *Second Asst. Supt., ibid., May 1, 1917-July 1, 1919*; Capt., M. C., U. S. Army, 1918-19; Major, Med. Sec., Officers' Reserve Corps, U. S. Army; *First Asst. Supt., P. B. B. H., July 1, 1919-May 1, 1921*; *Supt., Eastern Maine Gen. Hosp., Bangor, Maine, June, 1921-Feb., 1930*; Supt., The Memorial Hosp., Worcester, Mass.

STRAYHORN, JR., WILLIAM DAVID

B.A., Vanderbilt, 1925; M.D., *ibid.*, 1928; *Med. H. O., P. B. B. H., July 1, 1928-Nov. 1, 1929*; Asst. in Med., Vanderbilt Hosp., Nov. 1, 1929-July 1, 1930; Asst. Res. Phys., *ibid.*, 1930-31; Res. Phys., *ibid.*

STURGIS, CYRUS CRESSEY

B.S., Univ. of Wash., 1913; M.D., Johns Hopkins, 1917; *Med. H. O., P. B. B. H., Oct. 15, 1917-Aug. 22, 1918*; 1st Lieut., M. C., U. S. Army, 1918-19; *Asst. Res. Phys., P. B. B. H., Aug. 25, 1919-April 15, 1920*; *Res. Phys., ibid., April 15, 1920-Aug. 1, 1922*; *Assoc. in Med., ibid., Aug. 1, 1922-Sept. 1, 1925*; Fac. Instr. in Med., Harv., Sept. 1, 1922-Sept. 1, 1925; Asst. Prof. Med., *ibid.*, Sept. 1, 1925; Assoc. Phys., C. P. Huntington Hosp., Sept. 1, 1925-Jan. 1, 1926; *Physician, P. B. B. H., Sept. 1, 1925-July 1, 1927*; Director, Thos. Henry Simpson Mem. Inst. for Med. Research; Prof. Int. Med., Univ. of Mich. Sch. of Med.; Director, Dept. of Int. Med., Univ. Hosp.

TAFT, ANNIE E.

M.D., Tufts, 1907; *Res. Pathol., P. B. B. H., Nov. 5, 1917-Jan. 31, 1918*; Res. Phys., Pa. Hosp. Mental and Nervous Diseases, 1918-20; Special Research Asst., Boston Psychopathic Hosp., 1920-21; Neuro-Pathol., Pa. Hospital Mental Diseases, and Neuropsychiatrist, Community Health Centre, Philadelphia, 1922-27; Laura Spelman Research Fellow, Dept. Industrial Medicine, Univ. of Pa., 1927-31.

TAFT, ROGER BROWNE

D.M.D., Harv., 1908; Asst. in Oral. Surg., *ibid.*, 1910; Instr. in Oral. Surg., *ibid.*, Feb. 1, 1919; *Dental Surg., P. B. B. H., Jan. 13,*

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1916-Feb. 13, 1919; Instr. in Operative Dent., Harv.; in practice (Dentistry), Boston.

TAYLOR, ARTHUR C.

B.A., Univ. of Wisconsin, 1921; M.A., *ibid.*, 1924; M.D., Harv., 1927; *Med. H. O., P. B. B. H.*, July 1, 1927-Nov. 1, 1928; *Pathol. H. O., ibid.*, Jan., 1929-Jan., 1930; Asst. Res. in Surg., Wis. Gen. Hosp., Jan., 1930-July, 1930; Res. in Surg., *ibid.*, 1930-31; Instr. in Surg., Univ. of Wis.

TEEL, CHARLES E.

M.D., Washington Univ., 1923; Surg. Interne, New Haven Hosp., 1923-24; H. O., M. G. H., 1924-25; *Asst. Res. Surg., P. B. B. H.*, Nov. 1, 1925-June 22, 1926; Asst. in Genito-Urinary Surg., Harv., 1925-26; in practice, Bellingham, Washington.

TEEL, HAROLD M.

M.D., Harv., 1929; Arthur Tracy Cabot Fellow, Harv., Jan.-Sept., 1929; *Jr. Assoc. in Surg., P. B. B. H.*, July 1-Sept. 1, 1929; Asst. Res., Lakeside Hosp., 1929-31; H. O., Boston Lying-In Hosp.

TEFFT, JR., RICHARD C.

A.B., Yale, 1916; M.D., Harv., 1920; *Med. H. O., P. B. B. H.*, March 1, 1921-July 1, 1922; Assoc. Phys., Children's Med. Dept., M. G. H.; Consult. in Pediatrics, Mass. E. and E. Infir.; Instr. in Pediatrics, Harv.; Consult. in Pediatrics, Robert Brigham Hosp.; in practice, Boston, Mass.

TEMPLETON, EARL R.

B.S., Colgate Univ., 1914; M.D., Syracuse, 1920; *Pathol. H. O., P. B. B. H.*, July 6, 1920-July 1, 1921; Med. H. O., New Haven Hosp., 1921-22; Res. in Med., Buffalo City Hosp., 1922; Clin. Asst. in Med., *ibid.*; Cardiologist, Mercy Hosp., Buffalo, New York; in practice, Buffalo, New York.

THAXTER, LANGDON THOM

A.B., Williams, 1911; M.D., Harv., 1915; Med. House Pupil, M. G. H., 1915-16; *Surg. H. O., P. B. B. H.*, Nov. 14, 1916-July, 1917; Res. Roent., M. G. H., 1926-27; Roentgenologist, Maine Gen. Hosp.

THOMPSON, CHARLES BAKER

A.B., Haverford, 1909; M.D., Johns Hopkins, 1913; *Med. H. O., P. B. B. H.*, Nov. 1, 1913-Nov. 1, 1914; Second Asst. Res., Phipps Psychiatric Clin., J. H. H., 1914-15; First Asst. Res., *ibid.*, 1915-16; Psychiatrist and Executive Secretary, Mental Hygiene Soc. of Md., 1916-27; Editor, Mental Health, 1923-26; School Psychiatrist, Baltimore Public Schools, 1922-27; Attend. Phys., Vanderbilt Clin., Psychiatric Dept.; Instr. in Psychiatry, College of Phys. and Surgs., New York, 1927-29; Psychiatrist, Bellevue Hosp., New York; in practice, New York City.

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THURMON, FRANCIS M.

B.S., Illinois Coll., 1922; M.D., Harv., 1926; Interne, Wesley Mem. Hosp., 1926-28; Fellow in Med., Harv., 1928-29; *Asst. Res. Phys., P. B. B. H.*, June 15, 1929-Sept. 1, 1930.

TOWLERTON, FLETCHER JOHNSON

A.B., Harv., 1917; M.D., *ibid.*, 1921; H. O., Collis P. Huntington Mem. Hosp., 1919-20; *Surg. H. O., P. B. B. H.*, July 1, 1921-Nov. 1, 1922; Visit. Surg., Lyons Hosp., Lyons, New York; in practice, Lyons, New York.

TOWNE, EDWARD BANCROFT

A.B., Harv., 1906 (1907); M.D., *ibid.*, 1913; *Surg. H. O., P. B. B. H.*, July 1, 1913-Nov. 1, 1914; *Asst. Res. Surg., ibid.*, Nov. 1, 1914-Nov. 1, 1915; Surg., Second Harv. Unit, B. E. F., France, 1915-16; Vol. Asst. in Exp. Bacteriol., Mayo Foundation, Rochester, Minn., 1916; Fellow *pro tempore*, Mayo Foundation, 1916-17; *Asst. Res. Surg., P. B. B. H.*, Sept. 1, 1916-May 7, 1917; Major, M. C., U. S. Army, May, 1917-19; Assoc. Clin. Prof. of Surg., Leland Stanford Junior Univ., San Francisco; in practice, San Francisco, California.

TRANTER, CHARLES LEE

B.S., Univ. of Cal., 1911; M.D., *ibid.*, 1913; Med. and Surg. H. O., Univ. of Cal. Hosp., 1913-14; Asst., Nerve O. P. D., *ibid.*, 1914-15; Asst. in Neurol., Univ. of Cal., 1915; *Asst. Res. Surg., P. B. B. H.*, Jan. 8, 1916-Jan. 1, 1917; Asst. in Neurol., Univ. of Cal., 1917; Capt., M. C., U. S. Army; in practice, San Francisco, California.

TURNBULL, GEORGE CLARENCE

M.D., Northwestern Univ., 1922; H. O., Gen. Serv., Surg. and Obstetrics, Evanston Hosp., Evanston, Ill., 1922-23; Asst. in Pathol., Northwestern Univ., 1920-22; *Med. H. O., P. B. B. H.*, March 1, 1923-July 1, 1924; Phys. (special), Yale, Dept. Univ. Health, New Haven, Conn., 1924-26; Clin. Asst., Dept. Int. Med., Yale Univ. Sch. of Med., 1924-26; Post-Grad. work in Medicine and Pathol., Vienna, Austria, 1926-27; Assoc. in Med., Northwestern Univ.; Assoc. Phys., Evanston Hosp. Med. Service; in practice, Evanston, Illinois.

TURNER, RALPH WALDO

M.D., Albany Med. School, 1917; *Surg. H. O., P. B. B. H.*, Dec. 23, 1917-May 2, 1918; Lieut., M. C., U. S. Army. (*Deceased.*)

VAIL, HARRIS HOLMES

A.B., Yale, 1912; M.D., Harv., 1917; *Surg. H. O., P. B. B. H.*, March 1, 1916-May 3, 1917; Lieut., M. C., U. S. Navy, 1917-19; H. O., Aural, Mass. Eye and Ear Infir., 1920-21; Asst. Chief, Ear, Nose and Throat Clin., Cincinnati Gen. Hosp.; Attend. Laryngologist, Cincinnati Gen. Hosp.; Instr. in Oto-Laryngology, Med. Coll. of Univ. of Cincinnati; Attend. Laryngologist, Episcopal Hosp. for Children, Cincinnati; Attend. Oto-Laryngologist, Hosp. for Chr. Diseases, Cincinnati.

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VANCE, ROBERT G.

Roent., Huntington Mem. Hosp., 1924-28; *Assoc. in Roent.*, *P. B. B. H.*, 1928; Asst. Visit. Phys., X-ray Dept., M. G. H.; Roent. to Winchester and Chelsea Mem. Hosp.; Assoc. Roent., Newton Hosp.

VAN GORDER, GEORGE WILSON

A.B., Williams, 1911; M.D., Harv., 1915; *Surg. H. O.*, *P. B. B. H.*, *March 1, 1915-July 1, 1916*; House Surg., St. Anthony Hosp., Labrador, 1916; Med. House Pupil, M. G. H., 1916-17; House Surg., Free Hosp. for Women, Brookline; Capt., M. C., U. S. Army; Assoc. Prof. Surg. and Assoc. in Surg., Peking Union Med. Coll., Peking, China, 1920-29; Attend. Orth. Surg., M. G. H.; Instr. in Orthopedic Surg., Harv.

VAN WAGENEN, WILLIAM P.

A.B., Cornell, 1918; M.D., Harv., 1922; Asst. Anat., Cornell, 1918-19; *H. O.*, Memorial Hosp., N. Y., 1922; *Surg. H. O.*, *P. B. B. H.*, 1922-24; Res. Surg., Memorial Hosp., N. Y., 1924-25; *Asst. Res. Surg.*, *P. B. B. H.*, 1926-27; Res. Surg., Rochester Gen. Hosp., 1926-27; Asst. in Neurol., Harv. and B. C. H., 1927-28; Asst. Prof. Surg., Univ. of Rochester School of Med.; Assoc. Prof. Surg., *ibid.*

VASTINE, JACOB H.

M.D., Univ. of Pa., 1923; Interne, Easton Hosp., Easton, Pa., 1923-24; Gen. Practice, 1 year; *H. O.*, *X-ray Dept.*, *P. B. B. H.*, *Aug. 1, 1925-Feb. 1, 1926*; *Asst. Res. in Roent.*, *ibid.*, *Feb. 1-June 15, 1926*; Clin. Prof. of Radiology, Woman's Med. Coll., Philadelphia; Roentgenologist, Hosp. of the Woman's Med. Coll.; in practice, Philadelphia, Pennsylvania.

VAUGHAN, WARREN TAYLOR

A.B., Univ. of Mich., 1913; M.D., *ibid.*, 1916; *Med. H. O.*, *P. B. B. H.*, *July 1, 1916-Nov. 7, 1917*; M. C., U. S. Army. Nov. 7, 1917-July 27, 1919; Asst. in Preventive Med. and Hygiene, Harv., 1919-20; Lt. Col., M. O. R. C., C. O. Genl. Hosp., 41; Secretary, Am. Assoc. for the Study of Allergy; Editor, Journ. Lab. and Clin. Med.; in practice, Richmond, Virginia.

VERMOOTEN, VINCENT

A.B., Univ. of Capetown, South Africa, 1918; A.M., *ibid.*, 1919; M.D., Johns Hopkins, 1923; Sr. Demonstr. in Anat., Univ. of Capetown, 1918-20; Res. H. O., Johns Hopkins, 1923-24; Asst. Res. Surg., New Haven Hosp., 1924-27; Asst. in Surg., Yale, 1924-27; Asst. in G. U. Surg., Harv.; *Asst. Res. Surg.*, *P. B. B. H.*, 1927-28; Instr. in Urol., Yale Univ., 1928-30; Asst. Prof. Urol., *ibid.*; Assoc. Surg., New Haven Hosp.

VICKERS, DENVER M.

A.B., Colorado Coll., 1917; M.D., Harv., 1921; *Surg. H. O.*, *P. B. B. H.*, *July, 1921-Nov. 1, 1922*; Surg., Mary McClellan Hosp., Cambridge, New York; in practice, Cambridge, N. Y.

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VIETS, HENRY ROUSE

B.S., Dart., 1912; M.D., Harv., 1916; *Surg. H. O., P. B. B. H.*, March 1-Aug. 16, 1917; Capt., M. C., U. S. Army, 1917-19; Asst. Neurol., M. G. H.; Asst. Visit. Neurol., Long Island Hosp., Boston; Instr. in Neurol., Harv.; in practice, Boston.

WAKEMAN, EDWARD T.

B.A., Yale, 1919; M.D., *ibid.*, 1922; *Med. H. O., P. B. B. H.*, July 1, 1922-Nov. 1, 1923; in practice, New Haven, Connecticut.

WALKER, CLIFFORD BLACK

S.B., Univ. of Cal., 1906; Stud., Univ. of Cal. Med. Sch., 1907-10; M.D., Johns Hopkins, 1911; M.D., *ibid.*, 1912; Asst. to Dr. Cushing, 1911-12; Sr. Ophthal. House Surg., Mass. Eye and Ear Infirn., Boston, 1913; Sr. Aural House Surg., *ibid.*, 1914; *Assoc. in Surg., P. B. B. H.*, March 1, 1915-April 25, 1918; Asst. in Ophthal., Harv., 1916-18; Assoc. Staff, Good Samaritan Hosp. and Good Hope Clin.; Jr. Ophthalmic Surg., Co. Hosp., Los Angeles, Calif.; Assoc. Clin. Prof. Ophthalmology, College of Medical Evangelists; Assoc. Prof. in Ophthalmology (Surg.) Univ. of So. Calif.; in practice, Los Angeles, Calif.

WALKER, JR., GEORGE L.

B.S., Emory Univ., 1924; M.D., *ibid.*, 1926; H. O., Grady Hosp., 1926-27; House Phys., *ibid.*, 1927-28; Asst. Res. Phys., *P. B. B. H.*, Sept. 1, 1928-Sept. 1, 1929; Res. Phys., Cornell Div., Bellevue Hosp., N. Y., 1929-31; in practice, Atlanta, Georgia.

WALKER, WILLIAM G.

M.D., Univ. of Iowa; 3 months Pathol. Dept., *ibid.*; 1 year Interne, Univ. of Iowa Hosp.; 1 year Clin. Asst., *ibid.*; 2½ months Clin. Microscopy, *ibid.*; Jr. Assoc. in Med., *P. B. B. H.*, Sept. 25, 1922-July 1, 1924; Chief, Med. Serv., Brockton Hosp.; in practice, Brockton, Massachusetts.

WARREN, JR., WILLIAM CHESTER

B.S., Emory Univ.; M.D., *ibid.*; *Surg. H. O., P. B. B. H.*, March 28, 1922-July 1, 1923; Asst. and House Surg., Manhattan Ear, Nose and Throat Hosp., New York, 1923-24; Grad. Stud., Vienna, Austria; Assoc. Instr., O. R. L. Serv., Emory Univ.; in practice, Atlanta, Georgia.

WATKINS, S. SHELTON

A.B., Center Coll. of Ky., 1908; A.M., *ibid.*, 1909; M.D., Johns Hopkins, 1914; Med. and Surg. H. O., Church Home and Infirn., Baltimore, 1914; *Third Asst. Supt., P. B. B. H.*, May 1, 1914-Jan. 15, 1915; Asst. in Clin. Laryngology, Johns Hopkins; Asst. Disp. Laryngologist, J. H. H.; Asst. Res. Surg., *ibid.*; Mem. of Dr. L. F. Barker's Staff at 1035 No. Calvert St., Baltimore, Md.; Lieut., M. C., U. S. Navy, 1917-19; in practice, Louisville, Kentucky.

REGISTER OF FORMER MEMBERS OF THE STAFF

WEARN, JOSEPH TRELOAR

B.S., Davidson, 1913; M.D., Harv., 1917; *Med. H. O., P. B. B. H., June 15, 1917-June 15, 1918*; 1st Lieut., M. C., U. S. Army, 1917-19; *Asst. Res. Phys., P. B. B. H., Sept. 1, 1919-Aug. 15, 1921*; Instr. in Pharm., Univ. of Penn., 1921-23; Instr. in Med., Harv., 1923-24; Asst. Prof. of Med., *ibid.*; Asst. Phys., Thorndike Lab., B. C. H.; Jr. Visit. Phys., *ibid.*; Assoc. Prof. Med., Harv.; Assoc. Director, Thorndike Lab., B. C. H.; Visit. Phys., B. C. H., 1928-29; Prof. of Med., Western Reserve Univ., Cleveland, Ohio; Director of Med., Lakeside Hosp.

WEGEFARTH, PAUL

A.B., Johns Hopkins, 1908; Stud. of Med., Strassburg and Berlin, Germany, 1909-11; M.D., Johns Hopkins, 1912; *Surg. H. O., P. B. B. H., Nov. 1, 1912-March 1, 1914*; Res. Phys., Church Home Infirmary, Baltimore, 1914-15; Phys., San Diego, Cal., 1914-17; commissioned 1st Lieut., M. C., Sept., 1917; commissioned Capt., M. C., May, 1918; in practice at San Diego, May, 1919, until December, 1921. *Died March 29, 1923.*

WEISMAN, PAUL GERHARDT

B.S., Univ. of Mich., 1911; M.D., *ibid.*, 1913; H. O., Providence City Hosp. (Contagious Wards), 1914; H. O., R. I. Hosp., 1914-16; *Asst. Res. Phys., P. B. B. H., April 1-Aug. 1, 1916*; Asst. Res., Union Prot. Infirm., Baltimore, 1917; Res., *ibid.*, 1917-18; Lieut., M. C., U. S. Army, 1918; in practice, Colfax, Washington.

WELBOURN, MARSHALL AGNEW

B.S., Univ. of Mich., 1913; M.D., *ibid.*, 1915; *Assoc. in Med., P. B. B. H., July 1, 1915-March 1, 1916*; *Med. H. O., ibid., March 1, 1916-July 1, 1917*; Capt., M. C., U. S. Army 1917-19; Instr. in Int. Med., Univ. of Mich., 1919-20; in charge of laboratories, Westlake Hosp., Los Angeles, Cal.; Med. Staff, Selwyn Emmet Graves Mem. Disp., Univ. of Calif.; Attend. Staff, California Lutheran Hosp.; in practice, Los Angeles, California.

WELLS, GUY

Ph.B., Brown Univ., 1916; M.D., Cornell, 1920; Interne, R. I. Hosp., 1920-22; *Asst. Res. Phys., P. B. B. H., Aug. 1, 1922-March 1, 1924*; in practice, Providence, Rhode Island.

WELLS, WARD STANLEY

S.B., Grinnell, 1909; M.D., Harv., 1916; *Assoc. in Med., P. B. B. H., July 1, 1916-April 8, 1917*; *Med. H. O., ibid., April 8-July 18, 1917*; Major, M. C., U. S. Army, Letterman Gen. Hosp., Presidio of San Francisco, Calif.; Instr. in Clin. Electro-Cardiography, Army Med. Center, Washington, D. C. *Died Oct. 24, 1929, at Manila, P. I.*

WENTWORTH, JOHN ALEXANDER

A.B., Bowdoin, 1909; M.D., Harv., 1913; H. O., Hartford Hosp., Hartford, Conn., 1913-15; *Sr. Med. H. O., P. B. B. H., July 1-Nov. 1, 1915*; Alumni Asst., Clin. Pathol., Harv.; Asst., Harv. Infantile

PETER BENT BRIGHAM HOSPITAL

Paralysis Comm., Fall, 1916; *Asst. Res. Phys.*, *P. B. B. H.*, Nov. 1, 1915-Aug. 1, 1917; Assoc. Phys., Clifton Springs Sanitarium, New York, 1917-18; 1st Lieut., M. C., U. S. Army, 1918-19; Phys., Clifton Springs Sanitarium, New York, 1919-21; Asst. Phys., Hartford Hosp.; in practice, Hartford, Connecticut.

WEST, HOWARD FRANK

A.B., Stanford, 1912; M.D., *ibid.*, 1915; Interne, Lane Hosp., San Francisco, 1915-17; *Asst. Res. Phys.*, *P. B. B. H.*, Sept. 15-Oct. 15, 1917; *Act. Res. Phys.*, *ibid.*, Oct. 15, 1917-Jan. 1, 1918; *Res. Phys.*, *ibid.*, Jan. 1, 1918-April 15, 1920; Alumni Asst. in Med., Harv., 1918-20; Assoc. Phys., Diabetic Serv., Children's Hosp., Los Angeles; Assoc. Med. Director, Los Angeles Metabolic Clin.; Staff, St. Vincent Hosp., Los Angeles; Attend. Staff, Hosp. of Good Samaritan; Staff, Cedars of Lebanon and Los Angeles Gen. Hosp.; Clin. Prof. Med., Univ. of So. Calif.; Attend. Staff and Director, Cedars of Lebanon Hosp.; Sr. Staff, Los Angeles Gen. Hosp.; in practice, Los Angeles, Calif.

WHEELER, BANCROFT C.

A.B., Harv., 1920; M.D., *ibid.*, 1924; Surg. H. O., Mass. General Hosp., Sept., 1924-June, 1926; Urol. H. O., Roosevelt Hosp., Jan.-June, 1927; *Asst. Res. Surg.*, *P. B. B. H.*, 1927-28; Res. Surg., Mem. Hosp., Worcester, 1928-29; Asst. Visit. Surg., *ibid.*

WHEELER, DANIEL W.

S.B., Knox Coll., 1915; M.D., Rush Med. Coll., 1920; *Asst. Res. Surg.*, *P. B. B. H.*, June 1, 1921-March 1, 1922; Fellow in Pathol., Rush Med. Coll., 1920-21; Fellow, Trudeau Foundation, 1922; *Asst. Res. Phys.*, Trudeau Sanatorium, 1923; *Asst. Med. Director*, Nopeming Sanatorium, Nopeming, Minn., 1924; in practice, Duluth, Minnesota.

WHITAKER, LESTER R.

M.D., Harv., 1923; Surg. H. O., New Haven Hosp., 1923-24; *Assoc. in Surg.*, *P. B. B. H.*, July 11, 1924-Sept. 1, 1925; Arthur Tracy Cabot Fellow, Harv., 1924-25; *Asst. Res. Surg.*, *P. B. B. H.*, Sept. 1, 1925-July 1, 1927; Nat. Research Council Fellow in Surg., Univ. of Rochester Sch. of Medicine and Dentistry, 1927-28; Second Asst. Visit. Surg., Mass. Memorial Hosp.; Asst. in Surg., and Instr. in Anat., Boston Univ. Sch. of Med.; Assoc. Member, Evans Mem. for Clin. Research and Prev. Med.; in practice, Boston.

WHITING, WALTER BELKNAP

Two years pre-med. work, Wash. and Lee Univ., and Cornell Summer Sch.; M.D., Harv., 1923; *Med. H. O.*, *P. B. B. H.*, July 1, 1923-Nov. 1, 1924; *Asst. Res. Phys.*, *ibid.*, Nov. 1, 1924-July 1, 1925; Phys., Wichita Clin. Hosp.; in practice, Wichita Falls, Texas.

WHITNEY, RAYMOND CYRUS

B.S., Middlebury, 1914; M.D., Harv., 1918; *Surg. H. O.*, *P. B. B. H.*, Jan. 10-Oct. 28, 1918; American Relief Comm., Near East, Caes-

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area, Turkey-in-Asia, American Hosp.; H. O., Mass. Eye and Ear Infir., 1920-22; Ophthalmologist, St. Luke's Hosp., New Bedford; in practice (Ophthalmology), New Bedford, Massachusetts.

WILENS, GUSTAV

Ph.B., Yale, 1920; M.D., *ibid.*, 1923; *Pathol. H. O., P. B. B. H., July 1, 1923-July 1, 1924*; Res. Pathol., Children's Hosp., Boston; Instr. in Pathol., Harv., 1924-25; H. O. in Pediatrics, Children's Hosp., Boston, 1926-27; Director of Laboratories, Truesdale Hosp., Fall River, Mass.; Asst. Pediatrician, *ibid.*, Jan.-Sept., 1927; Director of Montgomery Co. Laboratories (Julius Wasserman Mem. and John Barnes Foundation), Montgomery Co., N. Y.; Pathol., City Hosp., St. Mary's Hosp., Amsterdam, N. Y.; Pathol. to Montgomery Co. Tbc. San.; Consultant Pediatrician, *ibid.*; in pediatric practice, Utica, New York.

WILMAERS, ALBERT

M.D., Univ. of Brussels, 1921; Interne, Hospitals of Brussels; 3 months as Asst. to Prof. Vaquez, Paris; worked under Dr. DeMoor and Dr. DeMeyer; Physiol. Inst., Univ. of Brussels; Fellow, C.R.B., Educational Foundation; *Act. Asst. Res. Phys., P. B. B. H., Sept. 15-Nov. 15, 1923*; Asst. in General Path., Univ. of Brussels, 1924-28; in practice, Brussels, Belgium.

WILSON, CHARLES P.

A.B., Reed Coll., Portland, Oregon, 1920; M.D., Johns Hopkins, 1924; *Med. H. O., P. B. B. H., March 1, 1925-July 1, 1926*; Asst. Res. Phys., Vanderbilt Univ., Nashville, Tenn., 1926-27; Res. Phys., *ibid.*, 1927-28; in practice, Portland, Oregon.

WILSON, DAVID COLE

B.A., Univ. of Va., 1912; M.D., *ibid.*, 1919; Interne, Univ. of Va. Hosp., 1919; *Med. H. O., P. B. B. H., Dec. 15, 1919-March 1, 1921*; Phys., Clifton Springs San., Clifton Springs, New York; Asst. Prof. Neuro-Psychiatry, Univ. of Virginia, Med. Dept.

WILSON, JAMES ROBERT

M.D., Syracuse Univ., 1921; Instr., *ibid.*; Asst. in Pathol., Harv.; Res. Pathol., Children's Hosp., Boston; Instr., Dept. Pathol., Harv.; *Res. Pathol., P. B. B. H., Sept. 15, 1923-July 1, 1924*; Assoc. in Pediatrics, Cornell Med. School, New York; Asst. Attend. Pediatrician, Out-Patient Dept., New York Nursery and Child's Hosp., New York; Pathologist, *ibid.*; Asst. Attend. Pediatrician, Pediatric Serv. of Dr. Schloss, 1924-29; Asst. Prof. Pediatrics, Syracuse Med. Sch.; Assoc. Attend. Pediatrician, Syracuse Univ. Hosp.

WILSON, RICHARD B.

B.S., Emory Univ., 1920; M.D., *ibid.*, 1922; H. O. Boston Psycho. Hosp., 1922-23; *Med. H. O., P. B. B. H., March 1, 1924-July 1, 1925*; Post-Grad. work at Inst. for Brain Anatomy, Amsterdam, Holland, 1925-26; Post-Grad. work in Neuro-Pathol., Hamburg, Freidrichsburg, Germany, 1926-27; in practice, Atlanta, Ga.

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WISLOCKI, GEORGE BERNAYS

A.B., Washington Univ.; M.D., Johns Hopkins, 1916; Asst. in Anat., *ibid.*, 1916-17; Arthur Tracy Cabot Fellow, Harvard, 1916-17; and 1919-20; *Assoc. in Surg., P. B. B. H., March 25-Oct. 1, 1920*; Assoc. Prof. of Anat., Johns Hopkins, Baltimore, Maryland; Parkman Prof. Anat., Harv.

WOOD, R. HUGH

M.D., Med. Coll. of Va., 1921; Interne, St. Elizabeth's Hosp., Richmond, Va., 1922; Res. Pathol., Mem. Hosp., Richmond, Va., 1922-23; *Med. H. O., P. B. B. H., March 1, 1923-July 1, 1924*; Chief Res., Grady Hosp., Atlanta, Ga., 1924-26; in practice, Atlanta, Georgia.

WOOD, RUSSELL

A.B., Harv., 1916; M.D., *ibid.*, 1920; *Med. H. O., P. B. B. H., March 1, 1921-July 1, 1922*; Grad. Asst. in Med., M. G. H., 1922; H.O., So. Dept., B. C. H., 1922-23; Asst. Visit. Phys., St. Luke's Hosp., New Bedford, Mass.; Visit. Phys., *ibid.*; in practice, New Bedford, Mass.

WOODS, ALAN CHURCHILL

A.B., Johns Hopkins, 1910; M.D., *ibid.*, 1914; *Med. H. O., P. B. B. H., July 1, 1914-Nov. 1, 1915*; Fellow and Assoc. in Exper. Med. and Asst. in Ophthal., Univ. of Pa.; Major, M. C., U. S. Army, 1917-19; Assoc. Prof. Clin. Ophthal., Johns Hopkins; Visit. Ophthal., *ibid.*; in practice (Ophthalmology), Baltimore, Md.

WOODWARD, HARRY WHITING

A.B., Bowdoin, 1910; M.D., Harv., 1915; *Surg. H. O., P. B. B. H., March 1, 1915-July 1, 1916*; H. O., Boston Lying-In Hosp., 1916; Capt., Royal Army Med. Corps; Visit. Staff, Surg. Services, Glockner Hosp. and Sanatorium, Bethel Hosp., Colorado Springs, Colorado; Surg. Consult., Modern Woodmen of America San., Colorado Springs; in practice, Colorado Springs.

WRIGHT, LESLIE H.

M.D., Univ. of Vt., 1918; H. O., Naval Hosp., Chelsea, 1918-19; Transport Serv., May 1, 1919-Sept. 1, 1919; Asst. Phys., Conn. State Hosp., Sept., 1919-July, 1920; Private Practice, July, 1920-May, 1922; Pathol., Monson State Hosp., May, 1922-Dec., 1924; Asst. in Hosp. Adm., Harv. Sch. Public Health, 1927-28; *Second Asst. Supt., P. B. B. H., Dec. 1, 1924-Dec. 1, 1927*; *First Asst. Supt., ibid., Dec. 1, 1927-July 1, 1930*; Supt., Genesee Hosp., Rochester, New York.

WRIGHT, MARY

A.B., Vassar, 1911; M.D., Johns Hopkins, 1917; *Med. H. O., P. B. B. H., July 1, 1917-Sept. 17, 1918*; H. O. (Pediatrics), M. G. H., 1918-19; H. O., St. Louis Children's Hosp., 1919; Asst. Res., St. Louis Children's Hosp., 1919-20; Phys. to Children's Med. O. P. D., M. G. H.; Attend. Phys., N. E. Hosp. for Women and Children; in practice, Boston. *Died, Jan. 13, 1927.*

REGISTER OF FORMER MEMBERS OF THE STAFF

WULFFAERT, FRANZ RENE

B.A., Brussels, 1906; B.S., *ibid.*, 1907; M.D., *ibid.*, 1912; Asst. Phys., St. John's Hosp., Brussels, 1913; Res. Anesthetist, St. Mary's Hosp., London, Eng., 1915; *Pathol. H. O., P. B. B. H.*, Jan. 15-July 1, 1918; *Res. Pathol., ibid.*, July 1, 1918-March 31, 1919; Asst. in *Pathol.*, Harv., 1918-19; Asst. Surg. (Gynecology), St. John's Hosp., Brussels, 1919-23; Asst. Surg., Univ. Brussels, 1923-25; in practice, Brussels, Belgium.

WYATT, TYREE C.

A.B., Wake-Forest Coll., 1920; M.D., Syracuse Univ., 1922; Dept. of *Pathol.*, *ibid.*, 1922-27; *Med. H. O., P. B. B. H.*, 1927-28; H. O., N. Y. Nursery and Child's Hosp., 1929; Attend. *Pathol.*, *ibid.*; Instr. in Pediatrics, Cornell Univ. School of Med.; Asst. Pediatrician, N. Y. Nursery and Child's Hosp.; Asst. Pediatrician, Syracuse Mem. Hosp.

WYNN, JAMES

B.S., Indiana Univ., 1917; M.D., *ibid.*, 1919; M.D., *cum laude*, *ibid.*, 1920; Asst. Res. Phys., *P. B. B. H.*, July 1, 1920-Oct. 4, 1921; Alternate on Visit. Staff, Indianapolis City Hosp., Indianapolis; Research Fellow, Indiana Univ. Med. Sch.; Died at Colorado Springs, Colo., Dec. 4, 1931.

YOAKAM, WAYNE ADDISON

B.S., Denison Univ., 1916; M.D., Harv., 1920; *Surg. H. O., P. B. B. H.*, July 1, 1920-Nov. 1, 1921; Obst. H. O. Boston Lying-In Hosp., 1921-22; Henry Ford Hosp., 1922-25; Assoc. Attend. Obstetrician, Providence Hosp. and Herman Keifer Hosp.; in practice, Detroit, Michigan.

ZOLLINGER, ROBERT

B.S., Ohio State Univ., 1924; M.D., *ibid.*, 1927; H. O., Inst. for Feeble-Minded, Columbus, Ohio, 1925-27; *Surg. H. O., P. B. B. H.*, Jan. 1, 1928-May 1, 1929; Asst. Res. Surg., Lakeside Hosp., July 1, 1929-July 1, 1930; Crile Fellow in Surg., Western Reserve Univ. Sch. of Med., 1930-31; Asst. Res. Surg., Lakeside Hosp.; Demonstr. in Surg., Western Reserve Univ.

Former Voluntary Graduate Assistants

ARMITAGE, GEORGE

M.B., Ch.B., Leeds, 1921; Surg. Tutor, Univ. of Leeds; Rockefeller Foundation Fellow, 1929-30; *P. B. B. H., Surg.*, Nov. 1929-Nov. 1930; Leeds, England.

ASHER, ARTHUR GRAHAM

M.D., Rush Medical College, Chicago; *P. B. B. H., Med.*, Oct., 1930-Oct., 1931; Kansas City, Mo.

BAGDASAR, DIMITRI

M.D., Bucharest, 1922; Physician-in-chief, Hospital of Nervous Diseases, Jimbolia; *P. B. B. H., Surg.*, Oct. 1927-Oct. 1928; Jimbolia, Roumania.

BARTRAM, EDWARD ALEXANDER

M.D., Univ. of Western Ontario, London, Canada, 1928; *P. B. B. H., Med.*, Oct., 1931-Aug., 1932.

BELL, DONALD C.

M.D., Columbia, 1914; *P. B. B. H., Med.*, 1923-24; Asst. Clin. Prof. Cleveland, Ohio.

BREMER, FREDERIC

M.D., Univ. of Brussels; C.R.B., Foundation Fellow, 1920; *P. B. B. H., Surg.*, Oct., 1920-April, 1921.

BRILL, I. C.

M.D., Columbia, 1914; *P. B. B. H., Med.*, 1923-24; Asst. Clin. Prof. Med., Univ. of Oregon.

BRUGSCH, HEINRICH

M.D., Berlin, 1927; Fellow of Akademische and Austausch-diensts; *P. B. B. H., Med.*, 1929-30.

COURVILLE, CYRIL B.

M.D., College Med. Evangelists, 1925; Interne, Los Angeles Gen. Hosp.; *P. B. B. H., Surg.*, Aug., 1927-Jan., 1928; Loma Linda, California.

DECAMPS, NESTOR

M.D., Brussels, 1925; Fellow of Commission for Relief of Belgium Education Foundation; *P. B. B. H., Med.*, 1926-27.

DECOPPET, GASTON

M.D., Univ. of Berne, 1924; Chef de clinique, Prof. de Quervain's service, Berne; Rockefeller Foundation Fellow, 1929-30; *P. B. B. H., Surg.*, Sept., 1929-Aug., 1930; Inselspital, Berne, Switzerland.

FORMER VOLUNTARY GRADUATE ASSISTANTS

DEERY, EDWIN M.

M.D., Harv., 1926; *P. B. B. H., Surg., Nov., 1928-Sept., 1929*; College of Physicians and Surgeons, New York.

FANG, I-CHI

M.D., Peking Union Medical College, 1922; *P. B. B. H., Administration, 1931*.

FINCHER, JR., EDGAR F.

M.D., Emory, 1925; Interne, Piedmont Hosp., 1925-26; *P. B. B. H., Surg., June-Sept., 1926*; Atlanta, Georgia.

FRIED, BORIS M.

M.D., Imperial Nicholas Univ., Saratov, 1914; *P. B. B. H., Surg.*

GAIRDNER, ALAN C.

B.Ch., Oxon, 1926; F.R.C.S., Eng., 1928; *P. B. B. H., Surg., Nov., 1928-Jan., 1929*; London Hosp., London, England.

GRANT, FRANCIS C.

M.D., Univ. of Penn., 1919; *P. B. B. H., Surg., Oct., 1925-May, 1926*; Philadelphia, Pennsylvania.

GROFF, RICHARD ARMAND

M.D., Univ. of Pennsylvania, 1928; *P. B. B. H., Surg., 1931*.

HALPENNY, ATTRACTA

L.R.C.S., Royal Coll. Phys. and Surg., Dublin; Purefoy Mem. Scholar, Coll. of Surgs., Dublin; *P. B. B. H., Surg., Sept.-Dec., 1929*; Dublin, Ireland.

HOLLAND, CLYDE

M.S., C.M., Dalhousie, 1923; Fellow of Rockefeller Foundation; *P. B. B. H., Med., 1929-30*.

ISAACS, RAPHAEL

M.D., Cincinnati, 1918; *P. B. B. H., Med., 1922-23*; Asst. Prof. of Medicine, Univ. of Michigan.

KAPLAN, ABRAHAM

M.D., Harvard, 1927; *P. B. B. H., Surg., 1931*.

KINDALL, LLOYD E.

M.D., Univ. of Colorado, 1913; *P. B. B. H., Urol., Jan.-June, 1926*; Oakland, California.

KOTTKE, ELMER E.

M.D., Northwestern Univ., Chicago; *P. B. B. H., Med., Oct., 1930-May, 1931*; Des Moines, Iowa.

KREDEL, FREDERICK E.

M.D., Johns Hopkins, 1929; *P. B. B. H., Surg., June 15-Sept. 15, 1927*; and *June 15-Sept. 15, 1928*.

PETER BENT BRIGHAM HOSPITAL

KUBIE, LAWRENCE S.

M.D., Johns Hopkins, 1921; *P. B. B. H., Surg., Sept.-Oct., 1927;*
New York City.

LEE, FERDINAND C.

M.D., Johns Hopkins, 1919; *Surg. Interne, Sept., 1919-Sept., 1920;*
P. B. B. H., Surg., June-Sept., 1923; Baltimore, Maryland.

LEHMAN, WALTER

Prof. *Surg., Chirurgische Univ. Clin., Göttingen, Germany;* *P. B. B. H., Surg., Jan.-April, 1926.*

LIST, CARL FELIX

M.D., Berlin, Germany, 1926; *P. B. B. H., Surg., 1931;* Berlin,
Germany.

LYNCH, RALPH

M.D., Pennsylvania, 1923; *P. B. B. H., Med., 1927-28;* Pittsburgh,
Pennsylvania.

MATTON, MARCEL

M.D., Ghent, 1929; Fellow of Commission for Relief of Belgium
Education Foundation; *P. B. B. H., Med., 1924-25.*

MEACHEN, JOHN W.

M.D., Harv., 1922; *P. B. B. H., Roentgenology, 1924;* Roentgenolo-
gist, Huntington Memorial and Palmer Memorial Hospitals.

MORELLE, JEAN

M.D., Louvain Univ., 1924; Asst. in Surg., Louvain; C.R.B. Edu-
cational Foundation Fellowship, 1925-26; *P. B. B. H., Surg., Oct.,*
1925-June, 1926; Louvain, Belgium.

MUANGAM, P.

P. B. B. H., Roentgenology, 1927. Sent by Government of Siam for
study.

ODY, FRANCOIS

M.D., Univ. of Geneva, 1922; Chef du second service de chirurgie
(au concours) de l'Hopital Cantonal de Geneve; Rockefeller Foun-
dation Fellow, 1930-31; *P. B. B. H., Surg., 1930-31.*

OLJENICK, IGNATIUS

Med. Docts. Arts, Univ. of Amsterdam, 1911; Rockefeller Founda-
tion Fellow, 1927-29; *P. B. B. H., Surg., Mar., 1927-Mar., 1929;*
Wilhelmina Gasthuis, Amsterdam.

PETIT-DUTAILLIS, DANIEL

Interne and Chef de clinique, Hopitaux de Paris; *P. B. B. H.,*
Surg., April 24-June 7, 1930.

REYNOLDS, LLOYD R.

M.D., Stanford, 1919; Surg. Res., Stanford Hosp., 2 yrs.; *P. B. B. H.,*
Surg., Oct., 1923-Jan., 1924.

FORMER VOLUNTARY GRADUATE ASSISTANTS

RIVES, JOHANNES

Rockefeller Foundation Fellow, Estonia; *P. B. B. H., Surg.*, 1931.

ROSENBLUM, HAROLD HEBER

M.D., Univ. of California Med. School; *P. B. B. H., Med.*, Oct., 1931-July, 1932.

SCHALTENBRAND, GEORG

M.D., Univ. of Munich, 1923; Rockefeller Foundation Fellow, 1925-27; *P. B. B. H., Surg.*, Jan., 1926-March, 1927.

SCHLESINGER, BENNO

Univ. of Berlin, Germany; *P. B. B. H., Surg.*, 1931.

SCHONBAUER, LEOPOLD

M.D., Univ. of Prague, 1914; Assoc. with Prof. Eiselberg, Vienna, 5 years; *P. B. B. H., Surg.*, Nov., 1924-Jan., 1925.

SCRIVER, WALTER DE M.

M.D., McGill, 1921; Fellow of National Research Council; *P. B. B. H., Med.*, 1925-26.

SHANKS, MAJOR

P. B. B. H., Pathology, 1927; Indian Medical Service.

STAMMERS, F. A. R.

M.B., Ch.B., Univ. of Birmingham, 1923; M.R.C.S., L.R.C.P., England, 1925; Rockefeller Foundation Fellow, 1928-29; *P. B. B. H., Surg.*, Oct.-Nov., 1929; Asst. Surgeon, Birmingham General Hospital, Birmingham, England.

STARR, M. P.

M.D., Rush, 1922; *P. B. B. H., Med.*, 1923-24; Asst. Prof. of Med., Northwestern Univ.

VAN DESSEL, ARTHUR

M.D., Univ. of Louvain, 1920; C.R.B., Educational Foundation Fellowship; *P. B. B. H., Surg.*, Feb., 1925-July, 1925.

ZEITLIN, ALEXANDER

M.D., Univ. of Warsaw, 1917; Assoc. Surg., Surgical Clin., North Caucasian Univ., Rostov; *P. B. B. H., Surg.*, Dec., 1930-Jan., 1931.

ZUBIRAN, SALVADOR

M.D., Univ. of Mexico, 1923; *P. B. B. H., Med.*, 1923-24; Prof. Public Health, Univ. of Mexico.

Register of Former Members of the Corporation

Elected

May 8, 1902	ALEXANDER COCHRANE	Died April 10, 1919
May 8, 1902	EBEN DRAPER	Died April 9, 1914
May 8, 1902	HENRY S. HOWE	Died March 2, 1931
May 8, 1902	WALTER HUNNEWELL	Died September 30, 1921
Oct. 2, 1902	AUGUSTUS HEMENWAY	Resigned September 12, 1919

Appointed

June 16, 1909	*JOHN P. REYNOLDS	Died December 9, 1920
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Elected

Feb. 7, 1918	CHARLES F. CHOATE, JR.	Resigned March 13, 1924
Dec. 11, 1919	LOUIS A. FROTHINGHAM	Died August 23, 1928
Feb. 12, 1920	WILLIAM H. WELLINGTON	Died February 2, 1925

* Appointed by the Governor of Massachusetts.

Officers of the Institution, 1932

President

CHARLES P. CURTIS

Treasurer

EDMUND D. CODMAN

Secretary

LAURENCE H. H. JOHNSON

MEMBERS OF THE CORPORATION

Appointed

Jan. 5, 1921	*WILLIAM AMORY	179 Commonwealth Ave.,	Boston
Mar. 26, 1925	HARRY L. BAILEY	93 Franklin St.,	Boston
May 8, 1902	EDMUND D. CODMAN	27 Kilby St.,	Boston
May 14, 1931	CHARLES A. COOLIDGE, JR...	50 Federal St.	Boston
Apr. 15, 1915	CHARLES P. CURTIS	71 Ames Building,	Boston
Mar. 25, 1931	RICHARD C. CURTIS	47 Ames Building,	Boston
Mar. 26, 1925	PAUL E. FITZPATRICK	104 Kingston St.,	Boston
June 16, 1909	†IRVIN McD. GARFIELD	30 State St.,	Boston
Feb. 7, 1918	FRANCIS L. HIGGINSON ...	70 Federal St.,	Boston
May 8, 1902	LAURENCE H. H. JOHNSON.	27 Kilby St.,	Boston
Mar. 27, 1924	RICHARD S. RUSSELL	50 State St.,	Boston
May 8, 1902	WILLIAM R. TRASK	10 State St.,	Boston

STANDING COMMITTEES OF THE CORPORATION

Building Committee

WILLIAM AMORY, *Chairman*
CHARLES P. CURTIS
LAURENCE H. H. JOHNSON
HARRY L. BAILEY
JOSEPH B. HOWLAND, M.D., *Secretary*

Auditing Committee

WILLIAM AMORY

* Appointed by the Governor of the Commonwealth under an act approved May 8, 1909. Commission expires May 1, 1936.

† Appointed by the Governor of the Commonwealth under an act approved May 8, 1909. Commission expires May 1, 1933.

PETER BENT BRIGHAM HOSPITAL

Committee on Finances

WILLIAM AMORY
EDMUND D. CODMAN
LAURENCE H. H. JOHNSON
RICHARD S. RUSSELL

Committee on Nominations

CHARLES P. CURTIS
EDMUND D. CODMAN

Committee on Rules

CHARLES P. CURTIS
EDMUND D. CODMAN
IRVIN McD. GARFIELD

VISITING COMMITTEE FOR 1931

CHARLES P. CURTIS	January
PAUL E. FITZPATRICK	February
RICHARD C. CURTIS	March
WILLIAM R. TRASK	April
LAURENCE H. H. JOHNSON	May
FRANCIS L. HIGGINSON	June
EDMUND D. CODMAN	July
CHARLES P. CURTIS	August
IRVIN McD. GARFIELD	September
HARRY L. BAILEY	October
WILLIAM AMORY	November
RICHARD S. RUSSELL	December

VISITING COMMITTEE FOR 1932

CHARLES P. CURTIS	January
PAUL E. FITZPATRICK	February
RICHARD C. CURTIS	March
WILLIAM R. TRASK	April
LAURENCE H. H. JOHNSON	May
FRANCIS L. HIGGINSON	June
EDMUND D. CODMAN	July
CHARLES A. COOLIDGE, JR.	August
IRVIN McD. GARFIELD	September
HARRY L. BAILEY	October
WILLIAM AMORY	November
RICHARD S. RUSSELL	December

EXECUTIVE COMMITTEE OF THE STAFF

HENRY A. CHRISTIAN, M.D.
HARVEY CUSHING, M.D.
S. BURT WOLBACH, M.D.
JOSEPH B. HOWLAND, M.D., *Secretary*

OFFICERS OF THE INSTITUTION

ADMINISTRATIVE DEPARTMENT

Superintendent

Service began
May 1, 1919 JOSEPH B. HOWLAND, M.D.

Assistant Superintendents

July 1, 1930 CHARLES L. CLAY, M.D.
July 20, 1930 NORBERT A. WILHELM, M.D.

Executive Assistant

May 14, 1927 HELEN GOODWIN, R.N.

BOARD OF CONSULTATION

Appointed

Mar. 25, 1912	WALTER B. CANNON, M.D., <i>Consulting Physiologist</i>
Mar. 25, 1912	OTTO FOLIN, Ph.D., <i>Consulting Chemist</i>
Oct. 7, 1929	HAROLD A. KENT, D.M.D., <i>Consulting Dental Surgeon</i>
Mar. 8, 1928	GEORGE R. MINOT, <i>Consulting Physician</i>
Apr. 12, 1923	HANS ZINSSER, M.D., <i>Consulting Bacteriologist</i>
Oct. 9, 1930	LYMAN G. RICHARDS, <i>Consulting Oto-Laryngologist</i>

MEDICAL DEPARTMENT

Service began

May 1, 1912	HENRY A. CHRISTIAN, M.D., <i>Physician-in-Chief</i>
July 1, 1912	CHANNING FROTHINGHAM, M.D., <i>Physician</i>
Sept. 1, 1922	REGINALD FITZ, M.D., <i>Physician</i>
July 1, 1928	CLIFFORD L. DERICK, M.D., <i>Physician</i>
July 1, 1915	JAMES P. O'HARE, M.D., <i>Senior Associate in Medicine</i>
Aug. 8, 1919	SAMUEL A. LEVINE, M.D., <i>Senior Associate in Medicine</i>
May 24, 1928	JOSEPH C. AUB, M.D., <i>Senior Associate in Medicine</i>
Dec. 12, 1912	NATHANIEL K. WOOD, M.D., <i>Associate in Medicine</i>
July 1, 1915	GEORGE P. DENNY, M.D., <i>Associate in Medicine</i>
Sept. 1, 1915	I. CHANDLER WALKER, M.D., <i>Associate in Medicine</i>
Sept. 12, 1919	DONALD J. MACPHERSON, M.D., <i>Associate in Medicine</i>
Nov. 12, 1925	GUSTAVE P. GRABFIELD, M.D., <i>Associate in Medicine</i>
May 10, 1926	WILLIAM P. MURPHY, M.D., <i>Associate in Medicine</i>
May 10, 1926	EDWARD S. EMERY, JR., M.D., <i>Associate in Medicine</i>
Sept. 1, 1931	RANDALL CLIFFORD, M.D., <i>Associate in Medicine</i>
Sept. 1, 1926	ROBERT T. MONROE, M.D., <i>Junior Associate in Medicine</i>
Nov. 1, 1927	LYMAN H. HOYT, M.D., <i>Junior Associate in Medicine</i>
Sept. 1, 1928	WILLIAM C. EGLOFF, M.D., <i>Junior Associate in Medicine</i>
Jan. 24, 1929	HARRY H. BLOTNER, M.D., <i>Junior Associate in Medicine</i>
Dec. 22, 1930	JOHN M. FLYNN, M.D., <i>Junior Associate in Medicine</i>
Sept. 1, 1931	MARSHALL N. FULTON, M.D., <i>Junior Associate in Medicine</i>
Sept. 1, 1931	RICHARD G. HAHN, M.D., <i>Resident Physician</i>
Aug. 1, 1930	ALEX R. FREEMAN, M.D., <i>Assistant Resident Physician</i>
Aug. 1, 1930	GORDON MYERS, M.D., <i>Assistant Resident Physician</i>
Sept. 1, 1930	LEYLAND J. ADAMS, M.D., <i>Assistant Resident Physician</i>

PETER BENT BRIGHAM HOSPITAL

July 1, 1931 WILLIAM K. PURKS, M.D., *Assistant Resident Physician*
Sept. 1, 1931 PAUL H. WOSIKA, M.D., *Assistant Resident Physician*

SURGICAL DEPARTMENT

Service began

Sept. 1, 1912 HARVEY CUSHING, M.D., *Surgeon-in-Chief*
May 1, 1912 JOHN HOMANS, M.D., *Surgeon*
Oct. 1, 1912 DAVID CHEEVER, M.D., *Surgeon*
June 19, 1916 WILLIAM C. QUINBY, M.D., *Urological Surgeon*
Oct. 9, 1919 GILBERT HORRAX, M.D., *Senior Associate in Neurological Surgery*
June 15, 1924 FRANCIS C. NEWTON, M.D., *Senior Associate in Surgery*
Nov. 17, 1914 HILBERT F. DAY, M.D., *Associate in Surgery*
Mar. 8, 1928 LOUISE EISENHARDT, M.D., *Junior Associate in Surgery*
Oct. 1, 1928 HARLAN F. NEWTON, M.D., *Junior Associate in Surgery*
Apr. 24, 1930 DONALD MACDONALD, M.D., *Junior Associate in Otolaryngology*
June 1, 1931 RICHARD MEAGHER, M.D., *Resident Surgeon*
June 1, 1931 BRONSON S. RAY, M.D., *Assistant Resident Surgeon*
Sept. 1, 1931 JAMES B. HERRING, M.D., *Assistant Resident Surgeon*
Oct. 1, 1931 KENNETH WADE THOMPSON, M.D., *Assistant Resident Surgeon*
Jan. 15, 1932 STEPHEN S. WOOLSTON, M.D., *Assistant Resident Surgeon*
Feb. 1, 1932 LEE G. KENDALL, M.D., *Assistant Resident Surgeon*
Apr. 10, 1932 RICHARD U. LIGHT, M.D., *Assistant Resident Surgeon*

PATHOLOGICAL DEPARTMENT

Service began

Dec. 1, 1916 S. BURT WOLBACH, M.D., *Pathologist*
Sept. 1, 1931 RUDOLF OSGOOD, M.D., *Resident Pathologist*

ROENTGENOLOGICAL DEPARTMENT

Service began

May 15, 1922 MERRILL C. SOSMAN, M.D., *Roentgenologist*
Jan. 12, 1928 EDWARD C. VOGT, M.D., *Associate in Roentgenology*
July 1, 1931 HUGH F. HARE, M.D., *Assistant Resident in Roentgenology*

DENTAL SURGEON

Service began

Oct. 7, 1929 MOSES S. STROCK, D.M.D.

OFFICERS OF THE INSTITUTION

MEDICAL HOUSE OFFICERS

<i>Service began</i>		<i>Service ended</i>
Nov. 1, 1929	PAUL C. DOZIER, M.D.	Mar. 1, 1931
Nov. 1, 1929	EARLE A. HARVEY, M.D.	Mar. 1, 1931
Nov. 1, 1929	DANIEL BLAIN, M.D.	Mar. 1, 1931
Mar. 1, 1930	EDWIN J. DOTY, M.D.	July 1, 1931
Mar. 1, 1930	JAMES H. MARKS, M.D.	July 1, 1931
Mar. 1, 1930	NORMAN A. POKORNY, M.D.	July 1, 1931
July 1, 1930	SAMUEL DIACK, M.D.	Nov. 1, 1931
July 1, 1930	RICHARD H. YOUNG, M.D.	Nov. 1, 1931

<i>Service began</i>		<i>Service will end</i>
Nov. 1, 1930	ROBERT FLEMING, M.D.	Mar. 1, 1932
Nov. 1, 1930	PHILIP SHAMBAUGH, M.D.	Mar. 1, 1932
Feb. 15, 1931	HARRY C. BUHRMEISTER, JR., M.D.	Nov. 1, 1931
Mar. 1, 1931	EUGENE C. EPPINGER, M.D.	July 1, 1932
Mar. 1, 1931	JAMES B. MCLESTER, M.D.	Mar. 1, 1932
Mar. 1, 1931	SELWYN STEEL, M.D.	July 1, 1932
May 28, 1931	PETER A. H. MIDELFART	July 1, 1932
Oct. 1, 1931	WILLIAM EVANS, M.D.	July 1, 1932
July 1, 1931	LOWREY F. DAVENPORT, M.D.	Nov. 1, 1932
July 1, 1931	ROBERT J. PARSONS, M.D.	Nov. 1, 1932
July 1, 1931	HOWARD A. VAN AUKEN, M.D.	Nov. 1, 1932
Nov. 1, 1931	ROBERTO F. ESCAMILLA, M.D.	Mar. 1, 1933
Nov. 1, 1931	MILTON H. CLIFFORD, M.D.	Mar. 1, 1933
Nov. 1, 1931	ROBERT E. GLENDY, M.D.	Mar. 1, 1933
Mar. 1, 1932	MAURICE A. SCHNITKER, M.D.	July 1, 1933
Mar. 1, 1932	CHARLES F. WALCOTT, M.D.	July 1, 1933
Mar. 1, 1932	CHRISTIAN F. MIDELFART, M.D.	July 1, 1933

SURGICAL HOUSE OFFICERS

<i>Service began</i>		<i>Service ended</i>
Oct. 1, 1929	FREDERICK A. FENDER, M.D.	Feb. 1, 1931
Oct. 1, 1929	WILLIAM DEG. MAHONEY, M.D.	Feb. 1, 1931
Jan. 1, 1930	KENNETH W. THOMPSON, M.D.	May 1, 1931
Jan. 1, 1930	BRONSON S. RAY, M.D.	May 1, 1931
Apr. 1, 1930	JOHN H. LAWRENCE, M.D.	Aug. 1, 1931
Apr. 1, 1930	DONALD E. DIAL, M.D.	Aug. 1, 1931
July 1, 1930	LUTHER M. STRAYER, M.D.	Nov. 1, 1931
July 1, 1930	JOSEPH H. BOYES, M.D.	Nov. 1, 1931

<i>Service began</i>		<i>Service will end</i>
Oct. 1, 1930	COURTNEY C. BISHOP, M.D.	May 1, 1932
Oct. 1, 1930	LEE G. KENDALL, M.D.	Feb. 1, 1932
Jan. 1, 1931	CHARLES M. GRAY, M.D.	May 1, 1932
Apr. 1, 1931	ARTHUR N. BERRY, M.D.	May 1, 1932
Apr. 1, 1931	JOHN W. KANE, M.D.	Aug. 1, 1932
Apr. 1, 1931	STANLEY BYSSHE, M.D.	Aug. 1, 1932

PETER BENT BRIGHAM HOSPITAL

<i>Service began</i>		<i>Service will end</i>
July	1, 1931	DANIEL V. TROPPOLI, M.D. Nov. 1, 1932
July	1, 1931	PAUL A. YOUNG, M.D. Nov. 1, 1932
Oct.	1, 1931	JEAN J. DUMORTIER, M.D. Feb. 1, 1933
Oct.	1, 1931	DAVID W. GAISER, M.D. Feb. 1, 1933
Jan.	1, 1932	FREDERICK H. SHILLITO, M.D. May 1, 1933
Jan.	1, 1932	DARWIN E. BENNETT, M.D. May 1, 1933
Apr.	1, 1932	PHILIP SHAMBAUGH, M.D. Aug. 1, 1933
Apr.	1, 1932	EDWARD M. DRISSEN, M.D. Aug. 1, 1933

PATHOLOGICAL HOUSE OFFICERS

Jan.	1, 1932	MARK ALTSCHULE, M.D.
Jan.	1, 1932	JOHN D. HOUGHTON, M.D.

HOUSE OFFICER IN ROENTGENOLOGICAL DEPARTMENT

July	1, 1931	JOSEPH H. MARKS, M.D.
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DENTAL HOUSE OFFICER

Aug.	1, 1931	WILLIAM J. NORFLEET, JR., M.D.
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SCHOOL OF NURSING

*Superintendent of Nurses and
Principal of the School of Nursing*

July	1, 1912	CARRIE M. HALL, R.N.
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Assistant Superintendent of Nurses

June	1, 1928	MARY C. GILMORE, R.N.
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Instructor in Theory

Sept.	1, 1931	MARTHA O. SAYLES, B.S., R.N.
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Instructor in Practice

Sept.	1, 1929	BERNICE J. SINCLAIR, R.N.
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Instructor in Operating Room Technique

Mar.	1, 1931	ESTHER B. KINNEY, R.N.
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Supervisors

June	1, 1929	HELEN A. NEWHALL, A.B., R.N.
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Sept.	1, 1929	ELSA E. C. STORM, R.N.
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Oct.	13, 1927	RACHEL T. ADAMS, R.N.
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Jan.	3, 1928	EVELEAN G. PIERCE, R.N.
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Night Supervisors

July	29, 1930	FRANCES M. DAGGETT, R.N.
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July	1, 1931	MARY F. LOUGHLIN, R.N.
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OFFICERS OF THE INSTITUTION

Chief—Social Service Department

Aug. 17, 1914 ALICE M. CHENEY, R.N.

Dietitian

Aug. 1, 1931 GERTRUDE McDONALD, B.S.

Apothecary

Dec. 2, 1912 HARRY H. COMAN

Clerk

Apr. 29, 1912 LIDA E. CRAWFORD

Record Librarians

House Records

June 16, 1922 EDITH M. ROBBINS

Out-Patient Records

Mar. 2, 1931 VINCENZA COLARUSSO

Housekeeper

Nov. 1, 1912 ELIZABETH M. PACKARD

Chief—Mechanical Departments

Oct. 21, 1911 JOHN A.AITKEN

FORM OF BEQUEST

I give and bequeath to the Peter Bent Brigham Hospital, a corporation established under the laws of the Commonwealth of Massachusetts, the sum of dollars, the same to be used for the furtherance of its charitable work.

PURCHASING BUREAU
BOSTON COUNCIL OF SOCIAL AGENCIES